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CITY OF



YORK.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE YEAR 1900.

YORK:

PRINTED BY THE "YORKSHIRE HERALD" NEWSPAPER COMPANY, LTD,
1901.

CITY OF YORK.

THE HEALTH COMMITTEE.

NOVEMBER, 1899, TO NOVEMBER, 1900.

The Right Honourable The Lord Mayor (Ald. Rymer), *ex-officio*.

Ald. Border (*Chairman*).

„ Edwin Gray.

Counr. Wrightson (*Vice-Chairman*).

„ Pearson.

„ Walker.

„ Smith.

„ Potter.

„ Brown.

Counr. Staines.

„ Fowler Jones.

„ Robinson.

„ Blakey.

„ Storey.

„ T. Carter.

„ Lund.

„ Hibbett.

THE FEVER HOSPITAL SUB-COMMITTEE.

NOVEMBER, 1899, TO NOVEMBER, 1900.

The Chairman.

Ald. Edwin Gray.

Counr. Wrightson.

„ Walker.

„ Potter.

Counr. Fowler Jones.

„ Brown.

„ Storey.

„ Staines.

„ Lund.

THE HEALTH OFFICE,

GUILDHALL,

YORK, *July*, 1901.

TO THE YORK CITY COUNCIL.

MY LORD MAYOR AND GENTLEMEN,

I have the honour to present the Annual Report on the Health of the City during the whole of the year 1900, during which period I have had the honour of serving you as Medical Officer of Health,—from January to May as Deputy, and since May 1st as Principal.

I must apologise for the lateness of the issue of the Report, due partly to the Local Government Board having prematurely issued new statistical forms of tables; this innovation made all my weekly returns useless for the annual compilation, and so I have had to go through the whole year's returns afresh. I have also been very anxious to issue a more complete record of the increasing work of the Health Department.

I desire to thank you, and especially the Chairman of the Health Committee, for much kindness and assistance during the year.

My thanks are also cordially due to the Medical Practitioners of the City for their kind co-operation in the work of the Department.

I must also record that all the Members of my Staff have worked hard and obligingly. This Report by no means covers the whole of the work of the Department. No formal Report could possibly do so.

I am, My Lord Mayor and Gentlemen,

Yours obediently,

EDMUND M. SMITH.

CITY OF YORK.

STATISTICAL SUMMARY FOR 1900.

*Area in acres, 3692.

Number of inhabited houses, Census, 1901, 16,491.

Population, Census, 1901, 77,793.

Proportion of persons per acre, 21·0.

„ „ per house, 4·71.

Gross estimated rental, £467,798.

Rateable value, £389,577.

Birth-rate, 29·3 per 1,000 living.

Nett general death-rate, 20·3 per 1,000 living.

Infantile mortality, 211·4 per 1,000 births.

Mortality of children under the age of 5, 8·6 per 1,000 living at all ages.

Zymotic mortality,	3·86	„	„
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Diarrhœa death-rate,	2·05	„	„
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Death-rate of Bronchitis and Pneumonia	3·2	„	„
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Phthisis death-rate,	1·48	„	„
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Cancer death-rate,	0·94	„	„
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* Area of City before Extension in 1884	1,971 $\frac{1}{4}$ acres.
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„ added in 1884	1,582 $\frac{1}{4}$ „
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„ „ 1893 (from Clifton)	138 $\frac{1}{2}$ „
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3,692 acres.

ANNUAL REPORT, 1900.

POPULATION.

The population of the City at the end of June, 1900, estimated according to the Registrar-General's method (based upon the rate of increase during the previous decade, 1881-1891), was 74,177 ; that for the year 1899 was 73,474.

During the preparation of this Report, however, the Census of 1901 has taken place, and the Registrar-General has issued a preliminary Report of results, his figures being subject to revision in a later Report.

In his preliminary Report the Registrar-General gives the Census population of York City, on 1st April, 1901, as 77,793.

The population at the Census of 1891 was 67,004 ; there has, therefore, been an increase of 10,789, or 16 per cent.

Since 1891 the area of the City has been increased, however, by the inclusion of a portion of the parish of Clifton (in 1893). Had this added area been comprised within the City in 1891, the population of the City at that Census, the Registrar-General estimates, would have been 67,749.

The area of the City, as extended in 1893, has therefore increased in population since the Census of 1891 by no less than 10,044 (14·83 per cent.), an annual increase of 1,004·4, or, approximately, 251 per quarter year.

The population of York at the Census of 1851 was 36,303, so that by natural increase of population, by excess of immigration over emigration, and by extensions of the City boundary, the population has been more than doubled in 50 years.

The remarkable increase in the population during the last decade, 1891—1901, as compared with the previous decade, 1881—1891,* is strikingly shewn by the following estimates:—

The population of the City in the middle of the year 1901, estimated by the Registrar-General's, the official method (based upon the rate of increase 1881—1891) is	74,889
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The estimate based upon the rate of increase 1891—1901 (as revealed by the recent Census) is	78,044
a difference between the two estimates of	3,155

The estimate made at the beginning of the present year, 1901, proves to be an under-estimate, therefore, by	3,155
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It is almost unnecessary to point out that the large increase in population during the decade 1891—1901, has not been due to the mere preponderance of births over deaths, as the following table shews (column B). It will be admitted, I think, that the increase is largely accounted for by the extensive immigration of railway employees and employees for the confectionery works, most largely at Messrs. Rowntree's.

It is obvious from the very considerable difference between these estimates, that the birth-rates and death-rates of the City have, during the last few years, been over-estimated. In other words, the remarkable actual increase over estimates favourably affects these rates (by 0·028 per unit per 1,000 living). I have, therefore, attempted to correct the estimates of population and the birth-rates and general death-rates since 1893, with results shewn in the following table A. These results are only mere calculations, however, as there was no accurate basis of estimation accessible. The number of inhabited houses picked out from each year's rate-books would have formed the most accurate basis, but that process, owing to the alteration in the rate-collecting system (through the unification of parishes), was too formidable an undertaking. And to estimate the number of inhabited houses by additions of new houses completed in each year is rendered impracticable by the consideration that, at the Census of 1891, there were no fewer than 1,302 uninhabited houses in the City. These must largely have become occupied since that date, but at what rate we have no information, so that a yearly estimate of the number of inhabited houses becomes mere guess-work. Presuming that half of the

* The Census population in 1881 was 49,530. In 1884 the City area was very largely extended and the population of the extended area was given by the Registrar-General as 61,789 in 1881.

The Census population of this extended area in 1891 was given as 67,004, an increase of 5,215; the rate of increase in the extended area between 1881 & 1891 was therefore 8·4 per cent. The rate of increase between the further extended area in 1891 & 1901 was 14·83 per cent.

new houses built in each year became occupied during that year, and that the 1,302 uninhabited houses became occupied at the rate of 100 per annum since 1892, we obtain the following estimates of the total inhabited houses in each year. At the Census of 1891 it was found that there was an average of 4·82 persons per house (at the Census, 1901, 4·71 persons per house). By multiplying the estimated number of inhabited houses in each year by the figure 4·82, we get an estimate of population for that year; thus, $15,840 \times 4·82 = 76,348$, an estimate of population for the year 1900.

INHABITED HOUSES.

1891	..	13,705, Census total.
1892	..	13,833
1893	..	14,138 (plus added Clifton area).
1894	..	14,310
1895	..	14,492
1896	..	14,668
1897	..	14,905
1898	..	15,162
1899	..	15,455
1900	..	15,840

The total number of inhabited houses within the Municipal limits of the City at the Census of 1901 has been given by the Registrar-General as 16,491, giving an average of 4·71 persons per house.

Presuming that the rate of increase during the last decade was equally, year by year, 1,004, between 1893 (the year of the Clifton extension, when the population of the City was estimated to be 69,388) and 1895, and that since 1895 the population has increased more rapidly by the higher annual figure 1104, then we obtain the yearly estimates of population given in column C of the following table A, and these estimates appear to me to be as approximately correct as any estimates that could now be made.

TABLE A.

YEAR.	A. Population as estimated by Registrar- General's method (<i>i.e.</i> , according to rate of increase during decade 1881-1891).	B. Population as estimated according to mere preponderance of Births over Deaths Year by Year (Natural Increase).	C. Population as estimated according to Annual rate of increase between 1891 and 1901, as revealed by Census of 1901.	D. Birth-rate per 1000 living, based upon the figures in Column A.	E. Revised Birth-rate, based upon figures in Column C.	F. Death-rate per 1000 living, based upon the figures in Column A.	G. Revised Death-rate, based upon the figures in Column C.
1891 (Census)	67,004	67,004	67,004	30.0	30.0	23.8	23.8
1892	67,807	67,422	67,807	31.9	31.9	20.9	20.9
1893	69,388	69,086	69,388	29.0	29.0	19.9	19.9
1894	70,053	69,715	70,392	31.0	30.8	17.4	17.4
1895	70,723	70,661	71,396	31.3	31.0	19.3	19.2
1896	71,400	71,507	72,500	30.9	30.4	18.1	17.8
1897	72,083	72,421	73,604	31.4	30.8	18.8	18.4
1898	72,774	73,332	74,708	30.8	30.0	19.0	18.5
1899	73,474	74,189	75,812	31.3	30.3	17.2	16.6
1900	74,177	75,225	76,916	30.4	29.3	21.1	20.3

SUMMARY OF TOTALS OF CENSUS, 1901.

Totals given in preliminary Report of Registrar-General:—

POPULATION OF PARLIAMENTARY BOROUGH OF YORK.

1891	..	67,004	..	Inhabited houses	..	13,586
1901	..	75,391	..	„	„	15,922

ADMINISTRATIVE COUNTY BOROUGH AND URBAN DISTRICT OF YORK.

Population in 1891	..	67,749	..	Inhabited houses	..	13,768
„	1901	..	77,793	..	„	16,491
Increase	..	<u>10,044</u>				

REGISTRATION DISTRICT OF YORK (80,100 ACRES).

Population in 1891	..	81,405	..	Inhabited houses	..	16,378
„	1901	..	91,656	..	„	19,228
Increase	..	<u>10,251</u>				

TABLE B.

CENSUS 1901.

POPULATION OF SUB-REGISTRATION DISTRICTS.

	Area in Statute Acres.		Inhabited Houses.		Population Enumerated.		Increase.	Population of City portion only.
	1891.	1901.	1891.	1901.	1891.	1901.		
Bootham	..	6648	..	4668	..	22,667	..	22,000
Micklegate	..	8013	..	6078	..	27,704	..	25,800
Walmgate	..	1420	..	6367	..	30,981	..	30,000
								77,800

TABLE C.

POPULATION OF THE CITY OF YORK WITHIN THE MUNICIPAL
LIMITS AT EACH CENSUS, 1801-1901.

Census.		Population.		Increase between each Census.	
				No. of Persons.	Rate per cent.
1801	..	16,846	..	—	—
1811	..	19,099	..	2,253	13
1821	..	21,711	..	2,612	14
1831	..	26,260	..	4,549	21
1841	..	28,842	..	2,582	10
1851	..	36,303	..	7,461	26
1861	..	40,433	..	4,130	11
1871	..	43,796	..	3,363	9
1881	..	49,530	..	5,734	13
1891	..	67,004	..	17,474	35

(due to the large extension of the
City in 1884.)

1901	..	77,793	..	10,789	..	16.1
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Total increase in 100 years, 1801-1901, 60,947.

1881	(Area as extended in 1884)				
	61,789				
1891	Census total, 67,004	..	5,215	..	8.4
1891	(Area as further extended in 1893)				
	67,749				
1901	Census total, 77,793	..	10,044	..	14.83

BIRTHS.

The total number of births registered in 1900 was 2,256.

" " " " 1899 was 2,301.

Decrease in 1900, 45.

Birth-rate in 1900, 29.3 per thousand living.

Average birth-rate, 1897—1899, 30.3 The birth-rate has remained steady
throughout the last decade.

The births in 1900 occurred as follows:—

				Whole City.	Bootham District.	Micklegate District.	Walmgate District.		
First quarter of year	..		577	..	137	..	180	..	260
Second	„	„	575	.	126	..	199	..	250
Third	„	„	609	..	184	..	208	..	217
Fourth	„	„	495	..	121	..	166	..	208
					568	..	753	..	935
<hr/>									
Males	1,156						
Females	1,100						

Vaccinations:—

Total number of children vaccinated in 1900, 1,815.

Dead or otherwise accounted for, 331.

Remaining unvaccinated, 213.

DEATHS.

The total number of deaths registered within the City of York during the year 1900 was 1,613, giving a death-rate of 20·9 per thousand living.

If the deaths of 55 persons not belonging to the City be deducted, and those of 10 citizens who died outside the City be added, the **nett total number of deaths was 1,568, giving a nett death-rate of 20·3 per thousand living.**

It will be seen that these figures compare unfavourably with the three previous years:—

		Total number of deaths registered.		Gross death-rate.		Nett number of deaths (<i>i.e.</i> , after deduction of deaths of non-residents).		Nett death-rate.
1897	..	1,392	..	19·3	..	1,358	..	18·8
1898	..	1,407	..	19·3	..	1,386	..	19·0
1899	.	1,308	..	17·8	..	1,265	..	17·2
1900	..	1,613	..	21·1	..	1,568	..	20·3

Increase in nett number of deaths in 1900 as compared with 1899, **303.**

The gross total number of deaths were registered during the four quarters of the year as follows:—

First quarter	..	..	.	467
Second	„	..	..	350
Third	„	..	..	456
Fourth	„	..	..	340
				<u>1,613</u>

THE LOCAL GOVERNMENT BOARD'S NEW TABLES.

In the accompanying tables deaths occurring in the Public Institutions are allotted to the Sub-Registration Districts, or other localities, according to the addresses of the deceased.

It will be observed that deaths of “Non-residents” are excluded from certain calculations, and deaths of “Residents” are included. The Local Government Board define “Non-residents” as persons brought into the District on account of illness and dying there; and “Residents” as persons who have been taken out of the District on account of illness and have died elsewhere.

The increased death-rate in 1900, as compared with the years 1897, 1898, and 1899, is chiefly accounted for by the increased number of deaths due to the following causes:—

	Total number of deaths in year 1900.	Total number of deaths in year 1899.
Measles	40	7
Epidemic Influenza	35	13
Whooping Cough	47	3
Typhoid Fever	38	26
Summer Diarrhœa	158	147
Other Zymotic and Contagious Diseases ..	26	14
Respiratory Diseases other than Phthisis	242	188
Violence	47	33
Premature Birth and Developmental Diseases	138	104

There has been a decided decrease in the number of deaths due to:—

Tubercular Diseases other than Phthisis, viz.,	13 less.
Bright's Disease	11 „
Cirrhosis of Liver	9 „
Insanity	16 „

It is to be regretted that we have to record a bad year. In the early part of 1900, however, Epidemic Influenza was again very prevalent, and so also were Measles and Whooping Cough, these two latter diseases being frequently combined—a severe combination. Then, in the summer months, there was a remarkable prevalence of Typhoid Fever and Summer Diarrhœa. During the Influenza period there was also a very large amount of severe Bronchitis and Pneumonia.

The distribution of the deaths according to Registration Sub-districts and age-periods:—

AGE-PERIOD.	DISTRICT.			Total.
	Bootham.	Micklegate.	Walmgate.	
0— 1 ..	96	143	238	477
1— 5 ..	29	51	105	185
5—15 ..	14	31	23	68
15—25 ..	19	20	33	72
25—65 ..	109	129	191	429
65 and over ..	94	102	141	337
Totals ..	361	476	731	1,568

Of the deaths in Walmgate District, 29 were of persons connected with the regiments stationed in the various Barracks in that District.

General death-rate in each Registration Sub-District of the City during the year 1900:—

				BASIS OF ESTIMATION.	
				Estimated Population of whole City in 1900.	Approximate Population of respective district.
Bootham District	..	..	4·7		16·4
Micklegate „	..	..	6·2		18·4
Walmgate „	..	..	9·5		24·3

Deaths of York residents occurring in the Public Institutions registered during the Year 1900:—

Union Workhouse, 73, of whom	{	26	had resided in Bootham Sub-Registration District.
		21	had resided in Micklegate Sub-Registration District.
		26	had resided in Walmgate Sub-Registration District.
York Lunatic Hospital (Bootham Asylum), 8, of whom	{	4	had resided in Bootham District.
		4	„ „ Walmgate „
York County Hospital (General Infirmary), 96, of whom	{	18	had resided in Bootham District.
		27	„ „ Micklegate „
		51	„ „ Walmgate „

(At the Retreat 9 deaths were registered, all of whom were non-residents).

In the accompanying tables these deaths are allocated to the Sub-Registration Districts in which the deceased resided.

TABLE D.

COMPARISON OF RATES PER 1,000 LIVING IN YEAR 1900.

				Averages for England and Wales.	Average of the 33 great towns.	Average of the 67 other large towns (including York).	York.
Birth-rate	..	..	..	28·9	.. 29·4	.. 29·4	.. 29·3
Death-rate	..	..	..	18·3	.. 19·5	.. 18·1	.. 20·3
Infantile Mortality (per 1,000 births)	..	..	..	154	.. 172	.. 166	.. 211·4
Zymotic death-rate	..	..	..	2·00	.. 2·5	.. 2·26	.. 3·86
Measles death-rate	..	..	..	0·39	.. 0·43	.. 0·51	.. 0·48
Whooping Cough death-rate	..	..	..	0·34	.. 0·45	.. 0·34	.. 0·59
Typhoid Fever death-rate	..	..	..	0·17	.. 0·20	.. 0·19	.. 0·51
Diarrhoea death-rate (whole year)	..	..	..	0·69	.. 0·94	.. 0·81	.. 2·05
Diarrhoea (3rd quarter of year)	..	..	..	1·9	.. 2·9	.. 2·2	.. 1·7
Phthisis	..	..	..	1·55	.. —	.. —	.. 1·48

INFANTILE MORTALITY.

The nett total number of deaths under one year of age in 1900 was 477, or 211·4 per 1,000 births; or 30·4 per cent. of the nett total number of deaths at all ages.

These deaths occurred as follows:—

First quarter	..	95		
Second „	..	82		
Third „	..	220	{	Bootham District .. 43
				Micklegate „ .. 73
				Walmgate „ .. 104
Fourth „	..	80		
		<u>477</u>		

And they were distributed as follows:—

Bootham Sub-Registration District,	96, or 169 per 1,000 births in that district.
Micklegate „ „	143, or 189 „ „
Walmgate „ „	238, or 254 „ „

			No. of deaths.		Proportion per 1,000 births.		Percentage of total deaths at all ages.
Previous years.	{	1897	..	455	..	200·5	.. 33·5
		1898	..	394	..	175·6	.. 28·4
		1899	..	359	..	156·0	.. 28·4
		1900	..	477	..	211·4	.. 30·4

DEATHS OF CHILDREN UNDER AGE OF 5 YEARS.

The nett total number of deaths of children under the age of 5 years (0—5) was 662, or 42·2 per cent. of the nett total of deaths at all ages, or 8·6 per 1,000 living at all ages in whole City.

Percentage in previous years	{	1897	..	576 deaths, or 42·2 per cent.
		1898	..	551 „ 39·7 „
		1899	..	477 „ 37·7 „

They were distributed as follows:—

Bootham Registration Sub-District—

125 deaths, or 5·6 per 1,000 living at all ages in that district.

Micklegate Registration Sub-District—

194 deaths, or 7·4 per 1,000 living at all ages in that district.

Walmgate Registration Sub-District—

343 deaths, or 11·3 per 1,000 living at all ages in that district.

The general mortality in 1900, in three age-groups, in the three Registration Sub-Districts, was as follows:—

	Age 0—1.	Age 1—5.	At all ages over 5.	Totals.
Bootham District ..	96	29	236	361
Micklegate „ ..	143	51	282	476
Walmgate „ ..	238	105	388	731
	477	185	906	1,568

The chief causes of death amongst these 662 children at 0—5 years of age were as follows:—

Premature Birth ..	..	..	..	..	44
Developmental Diseases ..	..	..	..	..	93
“Convulsions” (only cause named) ..	..	..	..	..	68
Tuberculosis {	Tubercular Meningitis,	}	..	..	28
	Tabes Mesenterica, &c.				
Measles ..	..	..	..	..	33
Whooping Cough ..	..	..	..	..	46
Summer Diarrhœa ..	..	..	..	..	148
Bronchitis and Pneumonia ..	..	..	..	..	125
Accidents ..	..	..	..	..	11
Meningitis (only cause named) ..	..	..	..	..	19
Enteritis „	„	..	..	..	15

It is interesting to inquire further into these causes of the infantile mortality, which still continues excessive, notwithstanding the progress of hygienic education and of general sanitation. First, the group of

DEVELOPMENTAL DISEASES.

This group comprises the deaths registered as due to “Injury at Birth,” “Debility at Birth,” Atelectasis (incomplete development of lungs), Congenital defects (malformed heart, harelip, cleft palate, malformed spine, hydrocephalus, &c.), want of breast milk, atrophy, debility, marasmus, dentition (teething), and rickets.

There is much in this group that is not preventible, but there is much that is distinctly preventible, setting aside the consideration that the advance of hygienic education, together with diminished “wear and tear,” and improved conditions for the average mother (if these should ever come about), should produce diminution in the number of deaths (due to congenital defects, debility at birth, etc.) coming under this group. The importance of this group, the preventible factor, largely consists in the following considerations:—

There is much carelessness and ignorance as to the rearing of infants, and much want of cleanliness. There is a very great amount of improper feeding of

infants, with improper, unsuitable—actually dangerous—foods; some excessive feeding, and also some insufficient feeding.

I have, therefore, worked out some facts and figures which may prove of interest and of value in future years, if not altogether in this year.

DEVELOPMENTAL DISEASES:—

Registration Sub-District.	Whole year.						
	Age 0—1.		Age 1—5.				Total.
Bootham	..	18	..	2	..	—	20
Micklegate	..	27	..	1	.. (1 at 5—15) ..		29
Walmgate	..	38	..	7	..	—	45
		83		10		1	94

As deaths from “CONVULSIONS” (where no other cause for death is assigned, in which case the death is classified under that other cause, “Developmental Diseases,” “Meningitis,” or whatever it may be) are largely due to the same pre-disposing causes as the “Developmental Diseases,” they may be set out similarly:—

Registration Sub-District.	Whole year.					
	Age 0—1.		Age 1—5.		Total.	
Bootham ..	3	..	0	..	3	
Micklegate ..	13	..	2	..	15	
Walmgate ..	41	..	9	..	50	
	57		11		68	

“Developmental Diseases” and “Convulsions” together:—

Registration Sub-District.	Whole year.				
	Age 0—1.		Age 1—5.		Total.
Bootham ..	21	..	2	..	23
Micklegate ..	40	..	3	..	44
Walmgate ..	79	..	16	..	95
	140		21		162

These 140 deaths at age 0—1 = 60·8 per 1,000 births.

“Developmental Diseases” and “Convulsions” combined, as they occurred during the year:—

Registration Sub-District.	First quarter of year.		Second quarter of year.		Third quarter of year.		Fourth quarter of year.		Total.
Bootham	..	6	..	6	..	7	..	4	23
Micklegate	..	13	..	5	..	19	..	7	44
Walmgate	..	24	..	26	..	30	..	15	95
		43	..	37	..	56	..	26	162

TUBERCULOSIS:—The infantile mortality under this head will be better dealt with in considering the deaths from that disease at all ages.

BRONCHITIS AND PNEUMONIA:—The infantile death-rate from these causes is necessarily large, owing to the delicacy of childhood and the conditions of our climate, but it must be remarked that children are often carelessly clad and unnecessarily exposed to the inclement weather and to sudden changes of clothing, and it is no uncommon sight to see young children permitted to sit with naked limbs for hours upon the cold damp stone door-step.

ACCIDENTS AND NEGLIGENCE:—There were 11 deaths of young children by accident; deaths due to negligence cannot be enumerated. Most of the deaths by accident were due to burns or scalds; to some extent these deaths must be due to the carelessness of parents or of elder children. It is forgotten that a young child has no fear of fire until it has been burned. It may be noted that during 1900 there were 34 inquests on deaths of children under the age of 5 years in York, 5 being in Bootham District, 5 in Micklegate District, and 24 in Walmgate District. Some of these inquests most probably came about through the child's illness being neglected until too late for medical attendance or skill. These instances form a sad commentary on the care of parents in some quarters.

MENINGITIS:—This class comprises deaths certified under that single name only. It is often difficult to specify the origin of Meningitis in young children; you don't know what they may have been doing in play or what injuries they may have received, but it is probable that some of these deaths were of tubercular origin, and should be classified under the heading of "Tubercular Meningitis" or "Tuberculosis of the Meninges."

The further consideration of the infantile mortality leads to the consideration of

DEATHS DUE TO THE SEVEN PRINCIPAL ZYMOTIC DISEASES,

SMALL-POX, MEASLES, SCARLATINA, WHOOPING COUGH, DIPHTHERIA, FEVER
(TYPHUS AND TYPHOID), AND SUMMER DIARRHŒA.

The total number of deaths from the seven principal Zymotic Diseases in the year 1900 was 297, equivalent to a death-rate of 3·86 per 1,000 living at all ages.

There were 139 deaths due to the Zymotic Diseases *exclusive* of Zymotic Diarrhœa, equivalent to 1·81 per 1,000 living at all ages.

There were 158 deaths due to Zymotic Diarrhœa only, over 53 per cent. of the whole Zymotic mortality, equivalent to a death-rate of 2·05 per 1,000 living at all ages. Of these 158

deaths, 138 were of children under one year of age, or over 61 per 1,000 births.

Previous years:—

Year.	Entire Zymotic mortality.				Zymotic Diarrhœa only.			
	No. of deaths.		Rate per 1,000 living.		No. of deaths.		Per 1,000 living.	
1897 ..	264	..	3·6	..	182	..	2·5	
1898 ..	190	..	2·6	..	120	..	1·6	
1899 ..	191	..	2·6	..	147	..	2·0	
1900 ..	297	..	3·86	..	158	..	2·05	

The occurrence of deaths due to the seven principal Zymotic Diseases in 1900 was distributed as follows:—

			Bootham District.		Micklegate District.		Walmgate District.		Total.
Measles	..	..	4	..	17	..	19	..	40
Scarlet Fever	..	..	3	..	3	..	2	..	8
Whooping Cough		..	12	..	7	..	28	..	47
Diphtheria	..	..	1	..	4	..	1	..	6
Typhoid Fever	..	..	7	..	17	..	14	..	38
			27		48		64		139
Zymotic or Summer									
Diarrhœa	..		36	..	44	..	78	..	158
			63		92		142		297

The deaths due to Zymotic or Summer Diarrhœa were distributed as follows:—

Registration Sub-District.	Whole Year.				*Third Quarter of Year.			
	At Ages:—			Total.	At Ages:—			Total.
	0-1.	1-5.	over 5.		0-1.	1-5.	over 5.	
Bootham ..	34	0	2	36	28	0	1	29
Micklegate ..	37	3	4	44	32	1	3	36
Walmgate ..	67	7	4	78	61	5	3	69
	138	10	10	158	121	6	7	134

* Of the remainder of the year's total, 19 occurred during the fourth quarter of the year.

Of the 158 deaths of the year, 12 were certified as due to "Epidemic or Zymotic Enteritis."

Of these 158 deaths, 138, it will be observed, were of children under the age of 12 months, being 28·9 per cent. of total number of deaths under that age from all diseases.

The history of the third, the summer, quarter of the year 1900,—the Zymotic Diarrhœa period,—is set forth in a table given below.

THIRD QUARTER, 1900 :—DEATHS.

District.	All Causes.		Diarrhœa.		Developmental.		All Causes.	
	Age 0—1.		Age 0—1.		Age 0—1.		All Ages.	
Bootham ..	43	..	28	..	29	..	7	.. 100
Micklegate ..	73	..	32	..	36	..	19	.. 144
Walmgate ..	104	..	61	..	69	..	30	.. 212
	220		121		134		56	456

97·5 per
1000 births.

$121 + 56 = 177$, or 78·4
per 1000 births.

In calculating *the death-rate from Diarrhœa*, deaths certified under the following names are included :—

Diarrhœa, Choleraic Diarrhœa (Cholera Nostras), Intestinal Catarrh, Enteric Catarrh, Epidemic or Summer Diarrhœa, Gastro-Intestinal or Gastro-Enteric Catarrh, Dysentery or Dysenteric Diarrhœa, Cholera Infantum, Epidemic or Zymotic Enteritis, and also Gastric Catarrh, Gastro-Enteritis or Muco-Enteritis, *if of zymotic or epidemic character*.

A separate heading for “Epidemic or Zymotic Enteritis” is provided in Table IV., on the ground that this cause of death has only recently been scheduled by the Registrar General as “Diarrhœa.” By retaining this separate heading for a few years, it will be possible to ascertain the number of deaths which are transferred from “Enteritis” or “Gastro-Enteritis” to “Diarrhœa.”

Deaths due to “Diarrhœa” occurring in the course of well-defined diseases such as “Tuberculosis,” “Cancer,” &c., are not included in the Diarrhœa death-rate or under the heading of “Diarrhœa” at all.

The heading “Enteritis,” in Table IV., comprises Non-tubercular or Non-malignant Ulceration of the Intestines, Non-zymotic Enteritis or Muco- or Gastro-Enteritis.

For some time past deaths due to Diarrhœa have been certified by Medical Men under such various names, that the Incorporated Society of Medical Officers of Health and the Royal College of Physicians have set themselves to secure more uniformity of nomenclature, so as to secure more accurate and comparable statistics on this important subject.

On July 18th, 1900, therefore, I issued a circular letter to the Medical Practitioners of the City containing the following paragraph:—

The NOMENCLATURE OF SUMMER, EPIDEMIC, OR ZYMOTIC DIARRHŒA:—In future, in certification of deaths, will you kindly employ either one of the above terms or one of the synonyms, “Epidemic Enteritis” or “Zymotic Enteritis,” recently recommended by the Incorporated Society of Medical Officers of Health and the Royal College of Physicians, avoiding the use (according to same excellent recommendation) of the terms “Gastro-Enteritis,” “Muco-Enteritis,” “Gastric Catarrh,” “Intestinal or Enteric Catarrh,” as synonyms of “Epidemic Diarrhœa.” It is generally recognised that some uniformity of nomenclature is eminently desirable in the interests of statistical work, and that, for the same reason, the deaths due to “Epidemic or Summer Diarrhœa” should be distinguished as far as possible from those due to Diarrhœa associated with other conditions.

I found I had anticipated the action of these two bodies. The following circular was issued in November, 1900, by

THE INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH.

MEMORANDUM ON CERTIFICATION OF “DIARRHŒA” DEATHS.

To Registered Medical Practitioners in England, Scotland, Ireland, and Wales.

Much confusion having arisen from the numerous synonyms, unauthorized by the Royal College of Physicians, which for some years past have been increasingly used in the certification of deaths from “diarrhœa”—the “epidemic diarrhœa” of the *Nomenclature of Diseases*—the Incorporated Society of Medical Officers of Health is desirous of calling the attention of all medical practitioners to a decision which has been arrived at by that College authorizing the use of the term “epidemic enteritis” (or, if preferred by the practitioner, “zymotic enteritis”) as a synonym for epidemic diarrhœa (*Nomenclature of Diseases*, p. 9, ed. 1896); and urging the entire disuse, as synonyms of epidemic diarrhœa in medical certificates of death, of such terms as “gastro-enteritis,” “muco-enteritis,” “gastric catarrh,” etc.

The confusion arising from the present practice in certification so seriously vitiates the accuracy of all statistics with regard to this disease, which is recognised by the Royal College of Physicians to be *a general disease of specific character* in the same sense as enteric and other fevers, that this Society desires to strongly urge medical men to strictly adhere to these authoritative decisions which the College has now published.

In future the only authorized names to be used in certifying deaths from this disease are: *epidemic enteritis*, *zymotic enteritis*, or *epidemic diarrhœa*, and all other synonyms are to be entirely discarded.

The late Dr. Ballard showed that this *specific* disease occurs in persons of all ages, and that it may happen in other than epidemic seasons, under which circumstances the Society would suggest the advisability of the employment of the alternative term, *zymotic enteritis*.

JOHN C. McVAIL, M.D., *President.*

FRANCIS J. ALLAN, M.D., } *Hon. Secretaries.*
HENRY KENWOOD, M.B., }

November, 1900.

Copies of this authoritative circular were also issued to the Medical Practitioners of the City.

These two circulars have already been followed in York by much more uniform certification.

The high mortality in York due to Diarrhœa has caused the City Sanitary Authority much anxiety for some time past, and in June, 1900, at the request of the Health Committee, I issued a *Special Report* on the "Infantile Mortality and Summer Diarrhœa in York, and the question of a pure milk supply, especially in relation to infant feeding." In this Report I reviewed the statistics of the subject, the causation of this mortality and of Summer Diarrhœa especially, and the preventive measures. The Corporation adopted my recommendations as to the more frequent flushing of sewers and street and alley drainage, the free use of chloride of lime and other disinfectants for privies and drains, and the more frequent cleansing of midden-privies in the congested districts. These works were carried out, I believe, as thoroughly as the capacity of the Staff would permit.

Another outcome of the Report is the adoption (in 1901) of an Infant Milk Depôt Scheme similar to those already at work at St. Helens and Liverpool.

In July, 1900, I also issued, at the request of the Health Committee, a leaflet on "*How to prevent Summer Diarrhœa*," a copy of which is appended. Some 9,000 copies of this leaflet were distributed in the working-class districts, and to working-class people by the Sanitary Inspectors, and through the kindness of the Clergy, Parochial and District Visitors, Medical Practitioners, District Nurses, Registrars of Births and Deaths, the Dispensary and County Hospital Out-Patient Physicians and Surgeons, and others. I believe that the leaflet did some good work; it certainly created great interest, and was widely read, and its usefulness was emphasised by the local press and by the medical and hygiene journals.

COPY OF LEAFLET:—

SUMMER DIARRHŒA IN CHILDREN AND ADULTS

Is brought about through filth, polluted soil, polluted air, polluted water, polluted milk or other food, improper feeding of children, and want of cleanliness.

HOW TO PREVENT IT.

Don't drink milk which has not been boiled. Boil it as soon as you buy it.

Don't give unboiled milk to your children.

Don't eat uncooked fruit when it is under-ripe, or over-ripe, or tainted.

Don't give fruit at all to young children.

Don't eat meat or other food which has become tainted, or "begun to go bad" before or after cooking.

Don't give babies starchy food (flour, bread, baked-flour, arrowroot, oatmeal, biscuits, potatoes, &c.,) or meat, or patent foods, before they are nine months old, except upon your doctor's orders. Always give young babies breast-milk as far as possible; that is best.

Don't give them bread-sops ("pap").

Failing breast-milk give them:—One part milk and two parts water, sweetened with sugar, up to two months old; then half milk and half water up to four

months old ; two parts milk and one part water up to seven or eight months old ; then gradually increase up to all milk.

Feed a baby only every two hours, not every time it cries ; it may cry because you are feeding it too much.

Don't give a child patent medicines and soothing syrups.

Never give a child stale food, or food that has been standing some hours. Always make it fresh.

Never let a baby's bottle smell sour. Always use two bottles ; boat-shaped, with no tube, only a teat. Whilst one bottle is in use keep the other soaking, teat and all, in water containing a little bicarbonate of soda, lime-water, borax, or Condyl's fluid (which are cheap), and give it a good wash with boiling water before using ; or boil some water with the bottle in it, and clean the teat well with boiled water.

Never let milk, either raw or boiled, stand uncovered. Keep it covered with a perfectly clean lid, or plate, or cloth.

Never give your children severe physic for the bowels in summer-time, except upon a doctor's orders.

Never neglect a person of any age ill with Diarrhœa. Send for a doctor early.

Keep your house clean in every part.

Keep yourselves and your children and their clothing clean.

Keep the front of your house clean and the back-yard also.

Keep your sinks, gulleys, and closets clean with brush or mop and hot water and soda. Flush them frequently with cold water.

Keep your privies clean. Don't pour liquids into them. Keep your children away from drains.

Keep your ceilings, walls, pantry, and cupboards clean and well lime-washed.

Keep the windows of your living-rooms and bedrooms open by day and your bedroom windows open by night. Don't block up your bedroom chimneys and fire-places.

Keep your food in a clean, cool, dry, ventilated place, and not near a privy, closet, or drain.

Keep all feeding utensils constantly clean and sweet with boiling water.

Keep your babies clad in woollen garments next to the skin all the year round.

Don't let dust, or manure, or kitchen refuse (vegetable refuse, potato parings, tea leaves, bits of meat or fish, &c.,) collect in the house or yard. Burn the kitchen refuse on the fire.

Never pour slops down the street gulleys. Pour them down the yard gully or the water closet, but not into the privy, or ashpit, or ashtub.

Never allow choked drains, or choked closets, or offensive accumulations near your house to remain unattended to. Report them, and also report badly-paved yards.

Don't keep poultry in your yard.

Use disinfectants, such as chloride of lime, freely to drains, gulleys, closets, and privies. Ask for some at the Sanitary Office.

Don't allow your house to be damp without reporting it to the Sanitary Office.

N.B.—These Rules largely apply also to the prevention of Typhoid Fever, and of "Consumption of the Bowels."

A very safe and simple way of boiling milk without spoiling its taste is as follows :—

Use a double milk sauce-pan. Or a small sauce-pan and a large pan.

Put the milk into the small sauce-pan, and put the lid on and keep it on.

Put this sauce-pan, with the milk in it, into the larger sauce-pan, which is half filled with cold water.

Place the large pan, with the milk sauce-pan in it, on the fire, and boil for four minutes. Keep the sauce-pan lid on all the time.

Cool the milk down quickly by putting the sauce-pan into two or three changes of cold water. Keep the lid on.

When cooled, stir the milk well with a spoon, and it is then ready to drink.

By permission of the Health Committee,

EDMUND M. SMITH, M.D., D.P.H.,

Medical Officer of Health.

Guildhall,

York, July, 1900.

WHOOPING COUGH.

There were 47 deaths due to this very fatal infantile affliction. Of these 12 occurred in Bootham District, 7 in Micklegate District, and 28 in Walmgate District.

21 occurred in the first quarter of the year.

16	„	second	„	„
7	„	third	„	„
3	„	fourth	„	„

MEASLES.

The number of deaths in 1897 was 28.

„	„	1898	„	36.
„	„	1899	„	7.
„	„	1900	„	40.

The disease occurred almost entirely during the first five months of the year, and in Micklegate and Walmgate Districts.

SMALL-POX.

During 1900 the City and neighbourhood remained entirely free from this disease.

SCARLET FEVER.

During the year 1900, 325 cases were notified, 167 of which were received into the Fever Hospital (see Table III.), or nearly 50 per cent. There were 4 deaths, all of which occurred in the Fever Hospital.

Cases notified in	{	1897	..	270;	deaths, 1;	cases received into Fever Hospital, 96.		
		1898	..	364;	„ 8;	„	„	133.
		1899	..	200;	„ 4;	„	„	105.

Whilst the disease has been chiefly of a mild type—as is usual nowadays—so mild that many cases have been carelessly or ignorantly overlooked, and have so maintained the more or less continuous run of cases, yet there has been a larger proportion of severe cases.

Removal of cases to the Fever Hospital has been encouraged as the most successful method of reducing the prevalence of the disease in the City.

It is a great pleasure to acknowledge the earnest co-operation of the Managers and Teachers of our Public Schools, and of the Managers of some trade establishments, in connection with the work of prevention of Scarlet Fever and of the other infectious diseases. Without their aid the Health Department would find it almost impossible to curtail the prevalence of Scarlet Fever.

The occurrence of Scarlet Fever was distributed through the year as follows:—

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.
Bootham District ..	13	25	18	12	68
Micklegate „ ..	13	14	28	39	94
Walmgate „ ..	15	12	66	70	163
	41	51	112	121	325

During the last 4 months of the year a threatening outbreak of Scarlet Fever commenced in one of the girls' class-rooms of FISHERGATE BOARD SCHOOL. Some child or children, had undoubtedly been attending the class in an infected condition. My attention was called to this particular class by the Clerk to the School Board, and for some weeks I kept 2 or 3 of the classes at the School under supervision. I visited these classes several times, excluded suspects from school attendance, followed them up at their own homes until clear of suspicion, and so, also, followed up suspects excluded through the unceasing vigilance of the headmaster and his assistants, who gave me every assistance in their power. At one time the closure of the school seemed an almost inevitable measure, but perseverance and much hard work and close vigilance enabled us to avoid taking that step. The school attendance was reduced by the outbreak from 95 to 83 per cent. The outbreak affected Walmgate Registration Sub-District generally, and some vigilance had to be exercised with regard to St. Lawrence's School.

During the outbreak, upon the request of the Health Committee, a *leaflet* of warning and guidance was issued, a copy of which is here appended. 13,000 copies of this leaflet were distributed throughout the City. It proved undoubtedly useful, as we heard of cases, or suspects, in consequence of its issue, and I have often heard of its educational benefits. Copies of the handbill, together with the appended circular letter, were also sent to the headmasters and headmistresses of all the Public Schools in the City.

Unfortunately, the children suspected in connection with the commencement of the outbreak at Fishergate School were reported to me too late to prove the suspicion. This fact calls attention to the necessity for the headmaster of a school,

or some other authority, upon the exclusion of a suspect from school attendance, to report the case to me. It is of no use relying upon medical attendance being called in by the parents.

The outbreak also called attention to the need and wisdom of having official medical officers in connection with the Elementary Schools, with the School Board, and with Associations of Voluntary Schools. The work of supervision of one or two schools during such an outbreak as above referred to is so great that it would be impossible for one official, such as the Medical Officer of Health, to cope in the same manner with an outbreak in two or three large schools at one time. SUCH MEDICAL OFFICERS OF SCHOOLS (who would be local medical practitioners having knowledge of the City and District, and who would receive remuneration, of course), would visit the schools placed under their supervision at frequent intervals all the year round, more frequently during outbreaks of disease. They would exclude transgressors and suspects from school attendance, and report them to the Medical Officer of Health of the City, who would take appropriate action. I am convinced that this is the only way by which to curtail outbreaks of Measles and Whooping Cough, and it would be invaluable in the exclusion of overlooked Scarlet Fever, Desquamation, Diphtheritic Throats, and also of those filthy parasitic diseases of the scalp, &c.

The question of NOTIFICATION OF MEASLES AND WHOOPING COUGH, under the Infectious Diseases Notification Acts, has often been raised, but I hesitate to recommend the adoption of that course, because I do not see that it would do much good, if any, in the suppression of those diseases. Measles, at the commencement of an attack, cannot be distinguished from a free nasal catarrh ("cold in the head"), and yet that catarrh at the commencement of Measles is virulently contagious, so that all the mischief of contagion is done before the case can be recognised as Measles by the later appearance of the characteristic rash. The only important gain in the notification of Measles would be in the direction of prevention of Scarlet Fever being passed over by parents as "only measles," a delusive expression, so fatal and mischievous in its consequences that its very use merits legal punishment. Whooping Cough, again, cannot be distinguished, in its early but contagious stage, from an ordinary cough, such as children often suffer from.

Medical Officers of schools would exclude, and should be empowered to exclude, at their discretion—in times of prevalence—cases of suspicious nasal catarrh and cough, until the cases are authoritatively declared to be free from infectious disease. Thus, in times of prevalence of these diseases, outbreaks could be "nipped in the bud," school attendance would not be so seriously reduced, and much disease and loss of life would be prevented.

In concluding these remarks, I venture to quote from an excellent paper on the subject by Dr. Wm. Robertson, Medical Officer of Health for Leith, late Medical Officer of Health for Paisley (*British Medical Journal*, April 6th, 1901):—

“The real solution of the whole difficulty seems to lie in the methodical examination of all scholars by Medical Men appointed by the School Boards for the several districts of every large centre of population. Every town should in fact possess its School Board of Health, controlled by the Medical Officer of Health.

“Quite recently I drew up a scheme in Paisley which met with the promised assistance from the members of the School Board. It was, briefly, as follows:—There are twelve large schools in the burgh; four Medical Men were to be appointed, and each was to have apportioned to him three schools; these schools would be visited every fortnight, and during epidemics more frequently, in order to examine and isolate those suffering from infectious or contagious disorders. A schedule was to be prepared by the four doctors and the Medical Officer of Health indicating the lines to be followed in inspecting scholars, as well as pointing out the chief points to be aimed at in isolating children liable to spread disease of any kind. A Medical Officer of Health has the right to enter a school and to examine the scholars; but how can a solitary man possibly undertake, with any satisfaction, such a task when he is confronted with twelve, or even more, huge Board Schools, and a wide-spread epidemic of disease on every side of him?

“To leave off where I began, therefore, let me repeat that while compulsory notification has assisted us considerably, it is now necessary for us to go further, and to circumvent the disguised benefits of the Act. In fact the beneficial work of the Act has clearly indicated what our further duty must be to arrest the spread of disease.”

COPY OF CIRCULAR LETTER:—

HEALTH OFFICE, YORK,
October, 16th, 1900.

To Headmasters and Headmistresses of Public Schools.

DEAR SIR OR MADAM,

I beg to call your attention, and that of your assistant teachers, to the enclosed handbill, which is being circulated throughout the City. I am requested by the Health Committee to ask you to bring the handbill before the notice of parents, teachers, and others, in such ways as within your powers. I am also requested to ask you to report all cases of rash, bad sore-throat, peeling (or appearances resembling peeling) of the skin (of the hands especially), discovered in school, to me immediately, giving name and address of child so affected; such child being promptly and properly sent home by you, as suspicious of Scarlet Fever.

COPY OF HANDBILL:—

SCARLET FEVER, &c.

CAUTION.

Notice is hereby given, that any person who, while suffering from Scarlatina (Scarlet Fever), Diphtheria, Small-pox, or other dangerous infectious disorder, exposes himself in any street, public place, shop, inn, or public conveyance; and also any person who, being in charge of any other person so suffering, exposes such

sufferer in school or other places aforesaid; and also any person who gives, lends, sells, transmits, or exposes, without previous disinfection, any bedding, clothing, rags, or other things which have been exposed to infection, from any such disorder, will be prosecuted. The Penalty is £5.

The chief signs of Scarlatina (or Scarlet Fever) are as follows:—

1ST DAY.—Headache, sore-throat, and vomiting.

2ND OR 3RD DAY.—Rash over whole body and limbs, very rarely on the face. The rash and sore-throat continue about one to five days. (A Doctor should be called in at once).

7TH TO 15TH DAY.—The skin begins to “peel off” in flakes, large or small, or in powder, more or less all over the body, the hands and chest first, and the feet last. This “peeling” continues for six to eight weeks, or even longer, and is very infectious. A Doctor should be consulted about “peeling” of the skin, whether a rash has been observed previously or not.

A case of Scarlet Fever (or Scarlatina), however “mild,” is very infectious, from the beginning of the illness to the very end of the “peeling” stage, and should be kept in a separate room and in the house throughout the whole of the time. A mild case is capable of causing an attack, even a severe one, in another person. Scarlet Fever is sometimes very severe and even fatal!

N.B.—The head of the family, or the nearest relative, or the person in charge of an infectious case, or the occupier of the house, must report the case immediately to me at this Office, whether a Doctor is in attendance or not, under Penalty of Forty Shillings.

EDMUND M. SMITH,
Medical Officer of Health.

HEALTH OFFICE, GUILDHALL,
October, 1900.

Before leaving the subject of notification, I would say that there are two infectious diseases which I think *ought to be included* in the notifiable diseases, viz., German Measles (Rötheln, Roseola), which is very liable to be mistaken for Scarlet Fever, and *vice versa*, and Chicken-pox (Varicella), because of its resemblance to modified or “mild” Small-pox. If modified Small-pox be diagnosed as Chicken-pox by the patients or parents (as actually happened, to my knowledge, in this City a few years ago), it is obvious that the whole community may be put into serious danger, and much mischief achieved before the mistake is discovered.

During 1900 there was considerable prevalence of *German Measles* in the City, and there was some degree of confusion with Scarlet Fever. German Measles affected two or three schools in the City to a marked extent.

DIPHTHERIA AND MEMBRANOUS CROUP.

Cases notified in 1897	..	36;	deaths, 5.
„ „ 1898	..	14;	„ 2.
„ „ 1899	..	28;	„ 4.
„ „ 1900	..	19;	„ 6.

In some of these cases defects in the drainage arrangements or surroundings of the houses were discovered and dealt with in the usual manner. Moist

accumulations of kitchen and privy refuse were associated with some of the houses where this disease occurred.

The cases in 1900 occurred as follows:—

4	of the cases occurred in	Bootham District.
12	„ „	Micklegate District.
3	„ „	Walmgate District.

4 in the first quarter of the year; 4 in the second; 5 in the third; 6 in the fourth.

There is, happily, a remarkable absence of this fatal disease in this City.

ENTERIC OR TYPHOID FEVER.

Cases notified in 1897 .. 106; deaths, 20, or 18·8 per cent. of cases.

„	1898 .. 132;	„	17, or 12·8	„	„
„	1899 .. 134;	„	26, or 19·4	„	„
„	1900 .. 244;	„	38, or 15·5	„	„

The excessive prevalence of Typhoid Fever during the year 1900 has already been reported upon (see Special Report, issued February 7th, 1901). I need not say more as to the causation of the outbreak, unless it be to emphasise its origin in midden-privies. Nottingham also suffers from Typhoid Fever. The Medical Officer of Health for that city, Dr. Boobyer, reports that in 1900 Typhoid Fever occurred in Nottingham as follows:—

Houses with pail closets	.	1 case in 92 houses.
„ midden-privies	..	1 „ 20 „
„ w.c.'s	.. ..	1 „ 407 „

It may be noted that in December, 1900, there were still 6,418 midden-privies in York, notwithstanding that so much work of abolition has already been accomplished.

Late in August, 1900, the York Sanitary Authority commenced a new system in the direction of the prevention of Typhoid Fever, viz., the use of special pails for the collection, removal, and destruction of all excreta from typhoid cases, thereby preventing the casting of these infected matters into privies, ashpits, drains, and sewers.

At the inauguration of the system the following circular letter was addressed to all the medical practitioners of the City:—

DISPOSAL OF EXCRETA OF ENTERIC FEVER CASES.

It has been resolved that, where such cases are retained at home and where there is a midden-privy or a defective or doubtful water-carriage system, the excreta shall be collected in special pails, with air-tight lids, and destroyed by deep burial

in a harmless place. Upon receipt of notification of a case, or *suspected case*, from the medical attendant such a pail will be immediately left at the house. The pail should be kept in the back yard, out of the house if possible, and all excreta, both liquid and solid, should be immediately consigned thereto, and the lid fastened down, which is very easily done. The pails will be collected every 24 hours, and freshly-charged, cleansed pails left in exchange as long as the case continues. It is believed that this system will meet with the approval of the medical practitioners of the City, and that they will co-operate with this Department in advising and superintending the strict use thereof by patients' nurses. Printed instructions will also be issued to each house where the pails are to be used.

Faithfully yours,

EDMUND M. SMITH,

Medical Officer of Health.

The following handbill is sent to each house where a typhoid pail is put into use:—

CITY OF YORK.

INSTRUCTIONS to NURSES and ATTENDANTS in CHARGE of CASE of TYPHOID FEVER

At.....

In future, don't empty the urine or the solid excrement of the patient into either the privy, ashpit, water-closet, or gulleys.

But empty them, always well mixed with disinfectant, into the special pail now provided by the Corporation for the purpose, and put the air-tight spring lid on immediately afterwards.

You must not use the pail for any other purpose whatever.

Keep the pail always in the back yard, or in an outhouse, not in the bedrooms or living rooms.

The pail will be called for every 24 hours, and a fresh clean pail charged with disinfectant will be left in exchange.

Don't stint the use of disinfectants for the excreta and for the pails.

N.B.—These pails are the property of the York Corporation.

On behalf of the Health Committee,

EDMUND M. SMITH,

Medical Officer of Health.

FEVER HOSPITAL.

The following cases of Infectious Disease were admitted to the Corporation Fever Hospital during the year:—

From Bootham Sub-Registration District—

57 Cases of Scarlet Fever.

2 „ German Measles.

5 „ Typhoid Fever.

TABLE IV.—The heading "Other Continued Fevers," includes:—Epidemic Cerebro-spinal Meningitis, Plague, Chicken-pox, Mumps, "German Measles" (Rötheln, Epidemic Roseola), Relapsing Fever, Simple Continued Fever, &c.

From Micklegate Sub-Registration District—

57 Cases of Scarlet Fever.

1 „ German Measles.

12 „ Typhoid Fever.

From Walmgate Sub-Registration District—

53 Cases of Scarlet Fever.

8 „ Typhoid Fever.

From Flaxton Rural District—7 Cases of Scarlet Fever.

From beyond that district —1 Case „ „

Altogether 175 Cases of Scarlet Fever.

3 „ German Measles.

25 „ Typhoid Fever.

A total of 203 cases were treated in the Fever Hospital.

Three cases were received into the Hospital as doubtful Scarlatina, which proved to be cases of German Measles.

Of the cases of Scarlet Fever, 84 were males and 91 females.

In 40 of the cases, the cost of maintenance was borne, partially or entirely, by the patients or their guardians; with 138 the cost was borne by the Boards of Guardians, city and rural. The cost of the 25 cases of Typhoid Fever was borne by the York Board of Guardians.

The average length of stay in hospital of Scarlet Fever cases was seven weeks, and of Typhoid Fever cases five weeks.

There were six deaths in the Scarlet Fever wards, two from accompanying diphtheritic conditions, one from meningitis (a rural case), and two from infantile convulsions. The sixth case was a strange one, and caused the hospital staff a very troublesome experience. The child died within a few hours of admission; both the Poor Law Medical Officer and I declined to certify cause of death, our opinion, shared by a third medical man, being that the child died from shock due to scalds incurred a day or two before admission to hospital. An inquest (two sittings) was held by the Coroner, but the evidence was such that the jury returned a verdict of “death from exhaustion, but there was not sufficient evidence to satisfy the jury how the said exhaustion was caused.”

There were two deaths in the Typhoid Fever wards, one from perforation and hæmorrhage, the other due to accompanying heart disease.

It is but just to record that during a very busy year, the Matron, Mrs. Dent, and her Staff worked very hard and well. The latter part of the year, owing to the outbreak in Walmgate Sub-Registration District, was exceptionally heavy as the

hospital was filled to its utmost capacity, and some of the cases required much attention, making night work almost as heavy as the work of the day. The special trained nurses engaged from the Monkgate Home to nurse the Typhoid Fever cases also worked diligently and skilfully.

Before leaving the subjects of Infantile Mortality and Zymotic Disease, I would say that the necessity for PRESERVING OPEN SPACES, "city lungs," in every part of the City, as recreation grounds for the young, and as quiet places where the aged may rest and breathe purer air, should not, in this busy building time, be overlooked. The streets, with their germ-laden dust and other dangers, are not fit and proper playgrounds for children.

DEATHS DUE TO BRONCHITIS, PNEUMONIA AND PLEURISY.

In 1897, 192 were registered, or 2·6 per 1,000 living.

In 1898, 224 ,, or 3·0 ,, ,,

In 1899, 188 ,, or 2·5 ,, ,,

In Table IV., Bronchitis and Pneumonia *only* are now classed together, *i.e.*, Acute Bronchitis, Chronic Bronchitis, Lobar (Croupous) Pneumonia, and Lobular (Broncho-) Pneumonia; Pleurisy and other diseases of the respiratory organs, exclusive of Phthisis, from which there are only a very few deaths annually, are now classed amongst "all other causes."

From Bronchitis and Pneumonia in 1900 there were 242 deaths registered, or 3·2 per 1,000 living, or 15·4 per cent. of total deaths from all diseases.

The deaths from Pneumonia and Acute Bronchitis occurred as follows:—

1st Quarter	..	91	3rd Quarter	..	20
2nd Quarter	..	51	4th Quarter	..	49

Their distribution in districts and in age-periods is shewn in Table IV.

DEATHS DUE TO PHTHISIS

(Tuberculosis of Lungs).

In 1900, there were 110 deaths due to Phthisis,
or 1·48 per 1,000 living;
or 7·01 per cent. of total deaths from all diseases.

Their distribution in sub-districts and age-periods is shewn in Table IV. They occurred during the year as follows:—

1st Quarter	..	28	3rd Quarter	..	25
2nd ,,	..	36	4th ,,	..	21

Previous years.	{	In 1897, 102, or 1·38 per 1,000 living; or 7·5 per cent. of the total deaths from all diseases.
		In 1898, 121, or 1·68 per 1,000 living; or nearly 8·6 per cent. ditto.
		In 1899, 103, or 1·40 per 1,000 living; or 7·8 per cent. ditto.

Action is at once taken by the Sanitary Department upon receipt of a "request for disinfection," after recovery or death of a case of Phthisis. An assistant is sent to offer to the householder a copy of the leaflet, issued in 1898, explanation of the methods of disinfection, including an offer of fumigation, and instruction as to cleansing of walls, floors, and solid contents of room with a 1 per cent. solution of chlorinated lime, and removal of any bedding, clothing, &c., which the householder or owner may desire to be, or may be persuaded to permit to be, destroyed, or disinfected by the Corporation steam disinfector. The same course is systematically carried out with the deaths from Phthisis, as they appear in the returns of the Sub-Registrars.

DEATHS DUE TO OTHER FORMS OF TUBERCULOSIS,

Namely:—Tubercular Meningitis, Tubercular Enteritis, Tabes Mesenterica, "Acute Miliary" and "General Tuberculosis."

Previous years.	{	In 1898, 45 deaths were registered, or 0·61 per 1,000 living at all ages.			
		In 1899, 59	„	„	or 0·80 „ „

During 1900 there were 20 deaths registered as due to Tuberculosis of the Meninges (Tubercular Meningitis,) and 26 deaths due to the other forms of Tuberculosis, **46 in all, or 0·62 per 1,000 living at all ages.**

It is pleasing to note that the death-rates from Phthisis and other Tubercular diseases remain about stationary, if they do not markedly decrease.

In May, 1900, I recommended the Committee to enter into an arrangement with the Bacteriological Department (under Prof. Trevelyan) of the Yorkshire College, Leeds, for the examination of specimens of *milk* suspected to be *tuberculous*, by inoculation and other tests, failing microscopical tests being satisfactory. My recommendation was adopted, and an agreement was entered into for such examinations. Since then two specimens have been so examined, with valuable results. The only drawback is that the three or four weeks required for the test provide the owner of the suspected animal with a good opportunity for sale of the animal out of our district or province. Our powers with regard to tuberculosis, or suspected tuberculosis, in cattle, require to be placed upon a much more just and satisfactory basis than at present.

CANCER.

The constancy in the number of deaths from the painful and deadly diseases classed together under this head (I believe there is an actual increase, quite apart from more accurate diagnosis and certification), and the steadily increasing hope of some developments of scientific revelation regarding these diseases and their causation, give a special interest to the statistics of the subject.

Under the title Cancer are comprised:—Deaths from Cancer, Carcinoma, Malignant Disease, Scirrhus, Epithelioma, Sarcoma, Villous Tumour and Papilloma of Bladder, Rodent Ulcer.

During the year 1900 there were 70 deaths from Cancer in the City, or 0·94 per 1,000 living. The deaths in 1899 numbered 68, equivalent to a death-rate of 0·92 per 1,000 living.

The distribution of the deaths in 1900 in sub-districts of the City, and in age-periods, are shown in Table IV.

The following Table differentiates the deaths according to the primary seat of the disease:—

CARCINOMA:—	Bootham District.	Micklegate District.	Walmgate District.	Totals.
Face and jaw ..	0	0	3	3
Female breasts ..	2	4	2	8
Stomach ..	3	3	8	14
Intestine ..	3	2	2	7
Liver ..	4	1	5	10
Pancreas ..	0	1	0	1
Pharynx ..	1	0	1	2
Œsophagus (gullet)	0	1	0	1
Rectum ..	3	2	0	5
Bladder ..	1	0	1	2
Uterus and vagina	0	3	6	9
Testis ..	0	1	0	1
SARCOMA:—				
Ribs ..	1	0	0	1
Neck ..	1	1	0	2
Tibia ..	0	0	1	1
EPITHELIOMA:—				
Jaw and lip ..	0	1	0	1
Œsophagus ..	0	1	0	1
Tongue ..	0	0	1	1
	19	21	30	70

DEATHS BY ACCIDENT OR NEGLIGENCE.

There were 41 deaths due to accident or negligence, which may be scheduled as follows :—

		Sub-Registration Districts.						
		Bootham.		Micklegate.		Walmgate.		Total.
Drowning	.. ..	3	..	3	..	4	..	10
Falls	.. ..	1	..	3	..	5	..	9
Burns and scalds	..	0	..	1	..	7	..	8
Run over in streets	..	1	..	3	..	0	..	4
Killed on railway	..	1	..	1	..	0	..	2
Killed by machinery	..	1	..	1	..	0	..	2
Suffocation	.. ..	1	..	0	..	1	..	2
Swallowing coin	..	1	..	0	..	0	..	1
Gunshot	.. ..	1	..	0	..	0	..	1
Poison..	.. ..	0	..	0	..	2	..	2
		10		12		19		41

DEATHS BY SUICIDE.

There were six deaths by suicide ; two being cut throats, one by hanging, one by shooting, one by drowning, and one by burning.

THE ARSENICAL BEER EPIDEMIC.

It is satisfactory to record that the City of York was quite unaffected. There was no increase in deaths from Alcoholism, Cirrhosis of Liver, or Neuritis, and I have not heard of any prevalence of Alcoholic Neuritis or of mysterious poisonings. During the whole year, 1900, only 6 deaths were certified as due to Alcoholism, and 12 to Cirrhosis of the Liver ; these were evenly distributed through the year, and in the City. In 1899 there were 18 deaths due to Cirrhosis of Liver. Ten samples of beer, all from different breweries, and 27 samples of sweets of various kinds were analysed during the 4th (the epidemic) quarter of 1900 and found free from arsenic.—(*See Report of Inspector under Food and Drugs Acts*).

In Table IV., “other Septic Diseases” includes:—Phagadœna, Pyæmia, Septicæmia, Infective Endocarditis, other allied diseases (Cancrum Oris, Noma, Stomatitis, Phlegmon, Carbuncle, Cellulitis, Emphysematous Gangrene).

“Puerperal Fever” includes:—Puerperal Pyæmia, Puerperal Septicæmia, Puerperal Sapræmia, Puerperal Pelvic Peritonitis, Puerperal Peri or Endo Metritis.

“Obstruction of Intestines” includes:—Hernia, Ileus, Intussusception, Strangulation, Stricture, Volvulus.

“Accidents and Diseases of Parturition” includes:—Abortion (Non-Septic), Mania, Convulsions (Nephritis or Uræmia), Thrombosis (White Leg, sudden death in Puerperium), Extra-Uterine Pregnancy, obstetrical operations.

HOUSING OF WORKING CLASSES ACT.

As interest in the working of this Act is keen at present, it may be serviceable to give a list of the Unhealthy Dwelling-houses in York, inspected and dealt with under Part II. of the Act, from January, 1898, to December, 1900:—

1898.—4 Houses in Trinity Lane, condemned as unfit for human habitation; 2 re-built and 2 improved.

House in St. Sampson's Square, condemned; demolished and replaced, as also an old inn next door, by new buildings; a fine street improvement effected.

Carmelite Street Corner, Hungate, 2 houses condemned; Houses purchased, demolished, and replaced by Offices by purchaser.

1899.—5 and 6, Groves Yard, condemned; improvements effected.

1900.—6 Houses, Back Rectory Buildings, Piccadilly, condemned; closed by purchaser.

House in Straker's Passage, Fossgate, condemned, sold by owner; re-condemned, closed by purchaser.

House in Toft Green, condemned; demolished by owner.

2 Houses in Palmer Lane, condemned; closed by Magistrates' order.

York has not yet had any experience of the working of Parts I. and III. of the Act. There is not much encouragement to try them. Part II. is, in practice, almost as awkward to work with as any legislation possibly could be.

Much difficulty has been experienced in obtaining and carrying into effect Closing Orders. For instance:—

The necessity for fresh representation, and fresh proceedings thereupon, on sale of house by owner after first notice.

There has been difficulty in getting the tenants to quit under Section 32 (3). There should be power to obtain an Eviction Order—A penalty is useless.

Where a house is incurably damp owing to its having been built upon damp soil and without damp-proof course, why serve notice to make fit for habitation? It cannot be made fit.

It ought to be possible to obtain demolition of extremely damp or unsanitary houses (incurably so and yet not obstructive) much more easily, as by purchase of the houses by the Local Authority for mere market land value, plus, perhaps, the value of fabric as it stands, such as it is.

Mere dilapidations are not recognised by the Act, and yet dilapidations are often of a nature most unsanitary, involving difficulties in cleansing of house, and keeping it clean, and in eradicating infectious disease when it occurs.

There are at present 1,519 back-to-back houses in the City.

During the year 1900, 547 new dwelling-houses (in 1899, 570), mostly under £19 annual rental, had been completed, and 288 were in course of erection, whilst plans for 504 more had been approved. I am sorry to say that, from a sanitary point of view, many of the cottages are unsatisfactory,—crudely built, bedrooms and even living rooms too small, the defect consisting chiefly in far too limited floor space. I am afraid these new areas will come to be a busy field for the “overcrowding” inspector. The satisfactory features of the new houses are that they are suburban in situation, that they are built with concrete foundations, and that since 1897 only 12 new privy-middens have been built, not one in 1900. (*See very interesting separate report of Building Inspectors*).

SANITARY STAFF.

It is highly satisfactory to have to record a substantial increase in the Staff of the Sanitary Department, which was much handicapped in its work by its limited Staff. The Department has gained during the year 1900 by the appointment of:—

Medical Officer of Health, giving his whole time to the duties of his office.

An additional Assistant Inspector of Nuisances; Fredk. Darley, formerly Clerk, was appointed, and has since obtained the Sanitary Institute’s Certificate.

An additional Junior Clerk.

A Disinfecting Attendant, who carries out the removal of infectious cases to hospital, the disinfecting of houses, disinfection of bedding, clothing, &c., control of steam-disinfecting station at Foss Islands Depôt, &c.

An Ambulance Driver—For the work of the excellent Ambulance Van (built by Messrs. Wilson and Stockall, of Bury, and obtained in 1899), the Department has added its own horse. The Ambulance Driver is kept busy attending to the work of the Ambulance and the Infected-bedding Van, stable work, cleansing of vans, disinfecting work, &c.

THE STAFF OF THE HEALTH DEPARTMENT

consists, therefore, of:—

The Medical Officer of Health.

The Inspector of Nuisances.

Three Assistant Inspectors of Nuisances.

Two Clerks.

Disinfecting Attendant.

Ambulance Driver.

Also connected with the Department:—

Public Analyst.

Meat and Cattle Inspector.

Canal Boats Inspector.

The day may come when it may be well to add:—

(1) A lady Sanitary Inspector, to educate working-class mothers in the rearing of their children and in general hygiene, to visit homes where deaths from Summer Diarrhœa, &c., have occurred, and to attend to other general sanitary work, in which women have been proved to be of special service.

(2) A special labourer for the working of smoke tests of drainage.

(Signed)

EDMUND M. SMITH, M.D., Edin., D.P.H., Camb.,
Medical Officer of Health.

REPORT OF THE INSPECTOR OF NUISANCES OF SANITARY WORK CARRIED OUT DURING THE YEAR 1900.

Number of inspections made 1,880.

Number of notices served 1,793.

DESCRIPTION OF WORK CARRIED OUT.

PRIVIES	..	..	Converted into water-closets	..	..	..	*112
			Floors and walls cemented	..	..	..	56
			Repaired	..	..	..	5
			Limewashed	..	..	..	75
* One owner was summoned, and a magistrates' order obtained.							
ASHPITS	..	..	Abolished	..	..	..	108
			Floors laid with cement concrete	..	..	..	102
			Inside walls cemented	..	..	..	31
			Repaired	..	..	..	11
DRAINS	..	..	Constructed with stoneware pipes		..	..	*159
			Disconnected from main sewer	..	..	..	147
			Ventilated	..	..	..	134
			Waste-pipes of sinks disconnected from drains	..			10
			Drains under houses abolished	..	..	..	12
			Stoneware syphon traps fixed under grates in yards				75
			Waste-pipes of sinks trapped or repaired		..		20
		Cleansed or repaired	..	..	..	112	

* One owner was summoned, and a magistrates' order obtained.

WATER-CLOSETS	..	Supplied with water from Co.'s mains	..	..	25
		Limewashed and cleansed	..	..	54
		Additional water-closets provided	..	..	6
		Washdown water-closets provided in lieu of old pan apparatus	..	..	5
		Repaired	..	..	63
		Soil-pipes ventilated	..	..	6
		Soil-pipes repaired	..	..	6
HOUSES	..	Cleansed and limewashed	..	..	43
		Roofs repaired	..	..	21
		Waterspouts fixed and repaired	..	..	63
		Downspouts disconnected from drains	..	..	179
		Accumulation of offensive refuse removed	..	..	155
		Number of premises on which pigs and other animals were so kept as to be a nuisance, and were removed therefrom	..	..	14
		Notices to limewash common lodging-houses	..	..	42
		Pavements of yards repaired	..	..	76
		Yards re-paved with cement concrete	..	..	16
		„ „ asphalt	..	..	9
COWSHEDS	..	Visits of inspection paid	..	..	384
		Notices served to limewash	..	..	192
		Drains inside sheds abolished	..	..	20
		Light and ventilation improved	..	..	8
		New cowsheds built	..	..	6
		Cowsheds closed or discontinued (since January, 1898)	..	..	30
SLAUGHTER-HOUSES	..	Visits of inspection paid	..	..	888
		Notices to limewash, cleanse, or repair	..	..	372
		Slaughter-houses closed or discontinued (1900)	..	..	4
INFECTIOUS DISEASES	..	Patients removed to hospitals	..	..	247
		Number of rooms disinfected	..	..	567
		Number of articles disinfected by steam disinfectant	..	..	7,038

SEIZURES OF UNSOUND FOOD.

CASE 1.—Carcase seized, tuberculous; condemned and destroyed.

CASE 2.—Rabbits seized, 5 in all, putrid; Vendor fined 7s. 6d. and costs.

SMOKE NUISANCE.

Total number of observations made	..	..	..	42
Number of chimneys observed	..	..	..	14
Number omitting black smoke in such quantity as to be a nuisance	..	..	..	10
Number of prosecutions	..	..	..	2

Legal proceedings were taken against one offender, and a justices' order obtained requiring abatement of the nuisance. Patent Smoke-apparatus has been affixed to each furnace, but complaints of the nuisance still continue to be made.

The other offenders were warned.

SAMPLES PROCURED FOR ANALYSIS UNDER THE SALE OF FOOD AND DRUGS ACTS.

No. of Samples.				Description of Samples.
16	..	..	..	Butter.
6	..	..	..	Margarine.
49	..	..	..	New Milk.
2	..	..	..	Golden Syrup.
1	..	..	..	Baking Powder.
1	..	..	..	White Pepper.
2	..	..	..	Cheese.
1	..	..	..	Demerara Sugar.
6	..	..	..	Whiskey.
1	..	..	..	Gin.
1	..	..	..	Coffee.
6	..	..	..	Jam.
2	..	..	..	Seidlitz Powders.
4	..	..	..	Condensed Milk.
1	..	..	..	Ground Ginger.
1	..	..	..	Ground Rice.
2	..	..	..	Linseed Meal.
1	..	..	..	Lard.
1	..	..	..	Malt Vinegar.
4	..	..	..	Gregory's Powder.
8	..	..	..	Ales.
2	..	..	..	Sweet Nitre.
1	..	..	..	Condensed Milk (Skimmed).
Total .. 119				8 Samples Adulterated, or 6·7 per cent. of total analysed.
<hr/>				
Adulterated	..	3	Gregory's Powder, with Magnesia Carbonate.	
		3	Milk, with water, to the extent of 8·2, 10, and 13·6 per cent. respectively.	
		2	Whiskey, one with 11·94 per cent. added water, one with 4·07 per cent. added water.	

The Vendors of Gregory's Powder and of Whiskey and of Milk were cautioned by letter.

One prosecution followed for adulteration of Milk with water (the 13 per cent. case); defendant was fined £5 and costs.

(Signed)

JONATHAN ATKINSON,

*Inspector of Nuisances and Inspector under
Sale of Food and Drugs Acts.*

LOCAL GOVERNMENT BOARD'S TABLE I.

NAME OF DISTRICT—YORK.

For Whole District.

YEAR.	Population estimated to each Year. Revised on Census, 1901.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		DEATHS IN PUBLIC INSTITUTIONS.	Deaths of Non-residents registered in District.	Deaths of Residents registered beyond District.	DEATHS AT ALL AGES. NETT.	
		Number.	Rate.*	Number.	Rate per 1,000 Births registered.	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1890	66,538	2014	30.2	No records available.	No records available.	1385	20.8	No records available.	No records available.	No records available.	No records available.	No records available.
1891	67,004	2013	30.0			1595	23.8					
1892	67,807	2165	31.9			1423	20.9					
1893	69,388	2014	29.0			1385	19.9					
1894	70,392	2177	30.8			1231	17.4					
1895	71,396	2218	31.0	455 394 359	200.5 175.6 156.0	1372	19.2	No records available.	34 21 43	No records available.	1358 1386 1265	18.4 18.5 16.6
1896	72,500	2209	30.4			1295	17.8					
1897	73,604	2269	30.8			1392	19.3					
1898	74,708	2243	30.0			1407	19.3					
1899	75,812	2301	30.3			1308	17.2					
Averages for years 1897-1899	74,707	2271	30.3	402	177.3	1369	18.6	185	32.6	—	1336	17.8
1900	76,916	2256	29.3	477	211.4	1613	20.9	185	55	10	1568	20.3

* Rates calculated per 1,000 of estimated population.

NOTE.—The deaths included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term “Non-residents” is meant persons brought into the district on account of illness, and dying there; and by the term “Residents” is meant persons who have been taken out of the district on account of illness, and have died elsewhere.

Area of District in acres (exclusive of area covered by water)	..	..	..	..	67,004
					13,705
					4.8
					At Census of 1891.

LOCAL GOVERNMENT BOARD'S TABLE II.
NAME OF DISTRICT—YORK.

NAMES OF LOCALITIES.	1. Whole District.				2. Bootham Sub-Registration District.				3. Micklegate Sub-Registration District.				4. Walmgate Sub-Registration District.			
	Population estimated to middle of each Year (Registrar-General's Method).	Births Registered.	Deaths at all Ages.	Deaths under 1 Year.	Population estimated to middle of each Year.	Births Registered.	Deaths at all Ages.	Deaths under 1 Year.	Population estimated to middle of each Year.	Births Registered.	Deaths at all Ages.	Deaths under 1 Year.	Population estimated to middle of each Year.	Births Registered.	Deaths at all Ages.	Deaths under 1 Year.
YEAR.																
1890	66,538	2014	1385	No records available.	17,471	475	354	95	23,676	752	372	133	30,936	1042	632	227
1891	67,004	2013	1595		17,669	517	380	61	23,996	713	349	103	31,109	1018	657	230
1892	67,807	2165	1423		17,900	517	346	67	24,300	685	323	96	31,274	1099	596	196
1893	69,388	2014	1385													
1894	70,053	2177	1231													
1895	70,723	2218	1372													
1896	71,400	2209	1295													
1897	72,083	2269	1358	455												
1898	72,774	2243	1386	394												
1899	73,474	2301	1265	359												
Averages of Years 1897 to 1899	72,777	2271	1336	402	17,680	503	360	74	23,990	716	348	110	31,106	1051	628	217
1900	74,177	2256	1568	477	18,200	568	361	96	24,577	753	476	143	31,400	935	731	233

NOTES.—Deaths of Residents occurring beyond the district are included in sub-columns c of this table, and those of non-residents registered in the District excluded. (See note on Table I. as to meaning of terms “resident” and “non-resident.”)

Deaths of residents occurring in public institutions are allotted to the respective localities, according to addresses of the deceased.

LOCAL GOVERNMENT BOARD'S TABLE III.

DISTRICT—YORK.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1900.

NOTIFIABLE DISEASE.	Cases Notified in Whole District.						Total Cases notified in each Sub-Registration District.			No. of Cases removed to Hospital from each Sub-Registration District.			
	At all Ages.	At Ages—Years.					1 Bootham.	2 Micklegate.	3 Walmsgate.	1 Bootham.	2 Micklegate.	3 Walmsgate.	4 TOTAL.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.							
Small-Pox ..	0	0	4	4	4	0	4	11	2	57	57	53	167
Cholera ..	0	0	2	0	0	5	0	1	1				
Diphtheria ..	17	0	0	0	0	0	9	15	8				
Membranous Group ..	42	1	2	8	7	23	68	94	163				
Erysipelas ..	325	4	75	191	40	15	52	110	82				
Scarlet Fever ..	0	0	19	89	52	82							
Typhus Fever ..	244	0								5	12	8	25
Enteric Fever ..	0												
Relapsing Fever ..	0												
Continued Fever ..	0						2	2	6				
Puerperal Fever ..	10	0	0	0	5	5							
Plague ..	0	0											
Totals ..	640	5	102	292	108	130	135	233	272	62	69	61	192

The Hospital is situate in Flaxton Rural District.

TABLE IV.

CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1900.

(Shorter Schedule of Incorporated Society of Medical Officers of Health.)

CAUSES OF DEATH.	DEATHS IN WHOLE CITY AT SUBJOINED AGES.							DEATHS IN SUB-REGISTRATION DISTRICTS (AT ALL AGES).			DEATHS IN PUBLIC INSTITUTIONS.
	All Ages.	Under 1 Year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Booth'm	Mickle-gate.	Walm-gate.	
1. Smallpox	0	0	0	0	0	0	0	0	0	0	0
2. Measles	40	7	26	7	0	0	0	4	17	19	0
3. Scarlet Fever	4	0	2	2	0	0	0	0	2	2	0
4. Typhus Fever	0	0	0	0	0	0	0	0	0	0	0
5. Epidemic Influenza	35	2	1	3	1	11	17	10	6	19	2
6. Whooping-Cough	47	24	22	1	0	0	0	12	7	28	0
7. Diphtheria and Membranous Croup	6	0	4	1	0	1	0	1	4	1	1
8. Croup	2	2	0	0	0	0	0	2	0	0	0
9. Enteric (Typhoid) Fever	38	0	3	5	11	18	1	7	17	14	14
10. Asiatic Cholera	0	0	0	0	0	0	0	0	0	0	0
11. Diarrhoea, Dysentery	146	127	10	0	0	9	0	34	42	70	8
12. Epidemic or Zymotic Enteritis	12	11	0	1	0	0	0	2	2	8	0
13. Enteritis.. .. .	15	11	4	0	0	0	0	5	3	7	0
14. Other Continued Fevers	1	1	0	0	0	0	0	0	0	1	0
15. Erysipelas	4	1	1	0	0	1	1	0	3	1	1
16. Puerperal Fever	7	0	0	0	4	3	0	1	2	4	3
17. Other Septic Diseases	9	2	1	0	1	4	1	4	1	4	2
18. Intermittent Fever and Malarial Cachexia	0	0	0	0	0	0	0	0	0	0	0
19. Tuberculosis of Meninges	20	5	7	7	1	0	0	4	5	11	4
20. Tuberculosis of Lungs	110	3	1	6	23	77	0	22	35	53	15
21. Other forms of Tuberculosis	26	8	4	7	3	4	0	7	9	10	5
22. Alcoholism	6	0	0	0	1	4	1	0	2	4	1

23. Cancer	70	0	0	0	1	42	27	19	21	30	14
24. Premature Birth	44	44	0	0	0	0	0	11	18	15	0
25. Developmental Diseases	94	83	10	1	0	0	0	20	29	45	3
26. Old Age	85	0	0	0	0	4	81	18	28	39	8
27. Meningitis	22	7	12	2	0	1	0	3	7	12	0
28. Inflammation and Softening of Brain	12	1	0	1	1	4	5	6	4	2	2
29. Organic Diseases of Heart	134	1	0	3	10	54	66	32	44	58	17
30. Acute Bronchitis	108	44	18	0	1	21	24	22	33	53	8
31. Chronic Bronchitis	31	0	0	0	0	10	21	6	8	17	5
32. Lobar (Croupous) Pneumonia	37	1	2	4	3	21	6	9	17	11	6
33. Lobular (Broncho) Pneumonia	66	28	32	3	0	0	3	10	19	37	6
34. Diseases of Stomach	19	3	1	0	1	11	3	7	4	8	3
35. Obstruction of Intestines	8	2	0	1	0	3	2	3	3	2	3
36. Cirrhosis of Liver	9	0	0	0	0	8	1	6	0	3	2
37. Nephritis and Bright's Disease	23	0	0	1	0	14	8	9	4	10	2
38. Tumours and other affections of Female Genital Organs	4	0	0	0	0	4	0	1	2	1	1
39. Accidents and Diseases of Parturition	4	0	0	0	2	2	0	2	0	2	0
40. Deaths by Accident or Negligence	41	2	9	3	3	20	4	10	12	19	14
41. Deaths by Suicide	6	0	0	0	0	5	1	1	2	3	0
42. Deaths from ill-defined causes	0	0	0	0	0	0	0	0	0	0	0
43. All other causes	223	57	15	9	5	73	64	51	64	108	16
All causes	1568	477	185	68	72	429	337	361	476	731	166
OTHER SPECIAL CAUSES (included in Totals of "All other causes" above):—											
Apoplexy	64	0	0	0	1	19	44	20	25	19	3
Insanity	11	0	0	0	0	9	2	4	1	6	9
Diseases of Spinal Cord	9	0	0	0	0	7	2	4	2	34	2
Rheumatic Fever	1	0	0	0	0	1	0	0	1	0	0
"Convulsions" (no other cause certified)	68	57	11	0	0	0	0	3	15	50	0
Diabetes Mellitus	8	0	0	0	0	5	3	1	3	4	0

In this table the deaths of "Non-residents" are excluded, and the deaths of 10 Residents occurring in Institutions outside the City (viz., 7 at Fever Hospital and 3 at North Riding Asylum) are included.

YORK EXTENSION AND IMPROVEMENT ACT, 1884.
INFECTIOUS DISEASES (NOTIFICATION) ACTS, 1889 & 1899.

CASES NOTIFIED TO THE SANITARY AUTHORITY IN EACH YEAR, 1890—1900.

DISEASE.	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Typhoid Fever	156	119	179	287	95	180	101	106	132	134	244
Scarlet Fever	189	98	109	156	108	138	194	270	364	200	325
Diphtheria	14	37	28	30	22	33	20	36	14	28	17
Membranous Croup .. ..	..	..	..	..	..	..	..	..	..	..	2
Puerperal Fever	1	6	6	9	1	3	6	2	4	4	10
Smallpox	0	0	2	72	3	0	0	0	4	2	0
Erysipelas .. ..	..	..	..	..	..	..	..	..	..	..	42

DEATHS IN THE CITY OF YORK FROM THE SEVEN PRINCIPAL ZYMOTIC DISEASES

IN EACH OF THE YEARS 1890—1900.

DISEASE.	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Small-pox	0	0	0	6	0	0	0	0	1	0	0
Measles	15	31	4	30	27	10	31	28	36	7	40
Scarlet Fever	3	2	1	2	2	4	6	1	8	4	8
Diphtheria	4	17	16	7	4	6	2	5	2	4	6
Whooping Cough	13	16	73	4	39	18	31	28	6	3	47
*Typhoid Fever	22	26	27	41	6	22	11	20	17	26	38
Diarrhoea	84	89	97	194	69	183	146	182	120	147	158
* Including Continued Fever.	141	181	218	284	147	243	227	264	190	191	297

CITY OF YORK.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

ON THE

PREVALENCE OF TYPHOID FEVER

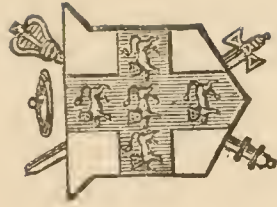
(ENTERIC FEVER)

IN THE CITY DURING THE YEAR 1900.

YORK:

PRINTED BY THE YORKSHIRE HERALD NEWSPAPER COMPANY, LTD.

1901.



With the Medical Officer of Health's Compliments.

Guildhall, York.

TO THE COUNCIL OF THE CITY OF YORK.

MY LORD MAYOR AND GENTLEMEN,

In compliance with the instructions of the Health Committee, following upon the receipt of the request of the Local Government Board, quoted below, I now beg to submit to you the following Special Report on "The Prevalence of Typhoid Fever in the City during the year 1900."

I have the honour to be,

My Lord Mayor and Gentlemen,

Your obedient Servant,

EDMUND M. SMITH,

Medical Officer of Health.

GUILDHALL, YORK,

February 7th, 1901.

Copy of Letter from Local Government Board.

LOCAL GOVERNMENT BOARD,

WHITEHALL, S.W.,

17th November, 1900.

SIR,

I am directed by the Local Government Board to state that they observe from the Returns made to the Registrar-General for the quarter ended the 30th September last, that ten deaths from Fever are reported to have occurred in the Registration Sub-District of Micklegate (part of), which is comprised within the Borough of York.

I am to request that the Town Council will instruct their Medical Officer of Health to prepare a Report (if he has not already done so) upon the recent prevalence of Fever in the Borough. This Report should contain such information as can be given with regard to the number of non-fatal as well as of fatal cases, and to the circumstances in which they have occurred (with reference particularly to the purity of the water used for drinking, to the drainage, and to the method of disposal of excrement in the localities where the disease has been prevalent). It should also state the measures taken by the Council or the Medical Officer of Health for checking the spread of the disease.

The Board will be glad to receive a copy of such Report as early as practicable.

I am, Sir,

Your obedient Servant,

JOHN LITHIBY,

Assistant Secretary.

TO THE TOWN CLERK,
YORK.

CITY OF YORK.

SPECIAL REPORT

On the Prevalence of Typhoid Fever in the City of York during the year 1900.

MY LORD MAYOR AND GENTLEMEN,

During the year 1900, 244 cases of Typhoid (Enteric) Fever were reported to me as occurring in the Sanitary District of the City of York.

Of these 38 died; 14 in hospital, and 24 at their own homes.

The death-rate from Typhoid Fever for the year was therefore 0·51 per thousand living, or 15·5 per cent. of cases notified.

The following are the statistics for the previous three years:—

In 1897—cases, 106; deaths, 20; percentage, 18·8.

In 1898—cases, 132; deaths, 17; percentage, 12·8.

In 1899—cases, 134; deaths, 26; percentage, 19·4.

In 1900—cases, 244; deaths, 38; percentage, 15·5.

During the first half of the year 1900 (January 1st to June 30th), there occurred 23 cases, with 4 deaths; during the second half of the year (July 1st to December 31st), there occurred 221 cases, with 34 deaths.

The Case-Mortality during the first half-year was 17·4 per cent.; during the second half-year, 15·3 per cent.; for the whole year, 15·5 per cent.

The age-distribution of the 23 cases occurring during the first half-year was as follows:—

Under 5 years of age, 6; with 0 deaths.

5—15 ,, 6; ,, 1 death.

15—25 ,, 3; ,, 1 ,,

25-- 65 ,, 7; ,, 1 ,,

65 and upwards 1; ,, 1 ,,

The age-distribution of the 221 cases occurring during the second half-year was as follows:—

Under 5 years of age, 13; with 2 deaths.

5—15	„	83;	„	4	„
15—25	„	49;	„	10	„
25—65	„	75;	„	18	„
65 and upwards		1;	„	0	„

Totals for the year:—

	Cases.	Deaths.	Case-Mortality per cent.
Under 5 years of age	.. 19	.. 2	.. 10·5
5—15	.. 89	.. 5	.. 5·5
15—25	.. 52	.. 11	.. 21·1
25—65	.. 82	.. 19	.. 23·1
65 and upwards	.. 2	.. 1	.. 50·0

I believe that a considerable proportion of the younger cases were of mild type.

SECONDARY CASES:—

Of the 221 cases occurring in the second half of the year, 50 were **secondary** to cases occurring in the same house, and 5 to cases at other houses with which they had been more or less in close contact. Of these 55, 13 occurred in Hungate District.

And at least 17 cases would appear to have contracted the disease **outside the City**, having been resident or visiting elsewhere prior to the incubation period of the disease. Of these, 12 fell ill in York whilst resident at houses with good water-closets and good drainage, and 5 at midden-privy houses.

CASES NOTIFIED DURING EACH MONTH OF THE YEAR.

January	..	3	} 23
February	..	1	
March ..	..	2
April ..	..	5
May ..	..	7
June ..	..	5
July	13	} 133 during the quarter.
August	..	47	
September	..	73	
October	..	51	} 88 during the quarter.
November	..	22	
December	..	15	

244

I believe that the unusual prevalence of the disease during the second half of the year is to be accounted for by the very dry Spring, and the very hot periods of the Summer, which fostered and developed the evils attaching to the increasing number of specifically infected midden-privies, with their accompaniment of polluted soil and sequence of polluted food. I append meteorological data from observations taken in the Yorkshire Philosophical Society's Grounds:—

THE RAINFALL IN YORK DURING 1900.

				Total.
January	..	..	..	3·31 inches.
February	..	..	..	3·65 „
March	..	..	..	0·40 „
April	..	..	..	1·19 „
May	..	..	..	1·12 „
June	..	..	..	1·73 „
July	..	..	..	1·26 „
August	..	..	..	3·68 „
September	..	..	..	0·86 „
October	..	..	..	2·51 „
November	..	..	..	2·59 „
December	..	..	..	2·59 „

MEAN DAILY TEMPERATURES IN YORK DURING THE SUMMER MONTHS OF 1900.

Week.				Daily Temperature (mean, Fahrenheit).
May	1—7	..	..	54·5
„	8—14	..	..	45
„	15—21	..	..	49·5
„	22—28	..	..	54
„	29—June 4	..	..	53
June	5—11	..	..	60
„	12—18	..	..	63
„	19—25	..	..	59·5
„	26—July 2	..	..	58·5
July	3—9	..	..	56·5
„	10—16	..	..	68·5
„	17—23	..	..	67·5
„	24—30	..	..	67
„	31—August 6	..	..	64
August	7—13	..	..	59·5
„	14—20	..	..	63·5
„	21—27	..	..	58
„	28—Sept. 3	..	..	57·5
Sept.	4—10	..	..	57·5
„	11—17	..	..	56·5
„	18—24	..	..	59
„	25—Oct. 1	..	..	54
Oct.	2—8	..	..	53·5
„	9—15	..	..	50·5
„	16—22	..	..	46·5
„	23—29	..	..	48

HOUSES AFFECTED.

During the first half-year the 23 cases were distributed amongst 21 houses ; during the second half-year the 221 cases were distributed amongst 171 houses, or 244 cases during the whole year amongst 192 houses.

The following Tables show the distribution of the cases in localities or districts, and the case-mortality for those districts :—

FIRST HALF-YEAR (January 1st to June 30th).

The cases were distributed as follows :—

District or Street.	Cases.	Deaths.
Bootham Sub-Registration District (3 cases)—		
Museum Street	1	
Burton Lane	2	1
Micklegate Sub-Registration District (7 cases)—		
The Mount	1	
Holgate Road	2	
Nunnery Lane	1	
Scarcroft Road	1	
Bishopthorpe Road	1	
Leeman Road	1	
Walmgate Sub-Registration District (13 cases, 11 houses)—		
Hungate	4 (2 were secondary cases)	
Layertorpe	5	2
Walmgate	2	
Hull Road	1	
Fulford Road	1	1
	23	4

Houses affected, 21.

Case-Mortality for this half-year, 17·4.

Of these 21 houses, 11 were associated with the existence of foul privies, and 10 with water closets, of which 7 had defective drains.

SECOND HALF-YEAR (July 1st to December 31st).

BOOTHAM SUB-REGISTRATION DISTRICT.

Street or Neighbourhood.	Cases Notified.	Houses affected.	Secondary Cases.	Deaths.	Case- Mortality per cent.
Newboro' Street District (22 cases, in 16 houses)—					} 4.5
Newboro' Street	14	10	4	1	
Pickering Terrace	2	1	1		
Scarborough Terrace	5	4	1		
Baker Street	1	1			
	22	16	6	1	
Clifton District (5 cases)—					
Burton Lane	1	1			
Skelton Street	3	1	2	1	
Compton Street	1	1			
Marygate	3	3			
Groves District	5	3	2	1	
Haxby Road District	3	3	..	2	
Union Terrace	1	1			
Claremont Terrace	1	1			
Bootham Asylum	1	1			
St. Andrewgate	1	1			
Huntington Road District	7	4	3	1	
Totals	49	36	13	6	12.2

MICKLEGATE SUB-REGISTRATION DISTRICT.

Street or Neighbourhood.	Cases Notified.	Houses affected.	Secondary Cases.	Deaths.	Case- Mortality per cent.
Leeman Road District (43 cases, 32 houses)—					
<i>Older Portion.</i>					
Kingsland Terrace ..	7	7	..	1	} 18·6
Hanover Street ..	8	8	..	2	
Bright Street ..	6	3	3	2	
Stamford Street ..	11	8	3	1	
Garfield Terrace ..	1	1	..	1	
<i>Newer Portion.</i>					
Garnet Terrace ..	2	1	1		
Bismarck Street ..	1	1			
Carnot Street ..	2	2			
Leeman Road ..	5	1	4	1	
	43	32	11	8	
Poppleton Road ..	1	1			
Holgate Road District ..	9	9	..	3	
Blossom Street ..	2	2	..	1	
Rougier Street ..	2	2			
Scarcroft Road ..	9	7	2		
Nunnery Lane ..	9	8	1		
Bishophill ..	5	5	..	1	
Bishopthorpe Road District (23 cases, 19 houses)—					
Bishopthorpe Road ..	9	6	3		} 17·4
Charlton Street ..	5	5	..	1	
Vine Street ..	7	6	1	2	
Lower Ebor Street ..	2	2	..	1	
Totals ..	103	85	18	17	16·5

WALMGATE SUB-REGISTRATION DISTRICT.

Street or Neighbourhood.	Cases Notified.	Houses affected.	Secondary Cases.	Deaths.	Case- Mortality per cent.
Hungate District (33 cases, 21 houses)—					
Lower Wesley Place ..	13	7	6	4	} 21·1
Garden Place	4	4	..	2	
Dundas Place	5	2	3		
Palmer Lane	4	3	1		
Other Streets	7	5	2	1	
	33	21	12	7	
Walmgate District	9	7	2	1	
Cemetery Road District ..	11	8	3	1	
Hull Road District	5	4	1		
Layerthorpe District	5	4	1	1	
Fulford Road	1	1			
St. Maurice's Road	1	1			
Heworth	1	1			
The Retreat	1	1			
York Castle	1	1	..	1	
St. Saviourgate	1	1			
Totals ..	69	50	19	11	16·0

It will be observed that four areas, all remarkably circumscribed, were particularly affected during the second half-year, viz.:—

Newboro' Street District,
Leeman Road District,
Bishopthorpe Road District,
Hungate District.

Next in importance, and much less circumscribed, were:—

Cemetery Road District,
Walmgate District,
Huntington Road District,
Holgate Road District,
Scarcroft Road District,
Nunnery Lane District.

The above-named circumscribed areas will be more fully referred to later.

I have visited every house affected, in some cases upon two or more occasions,

The following is a **Summary of the insanitary conditions** found to be associated with the whole number of cases during the second half of the year:—

Of the 171 houses affected during the second half of the year (30 at least of which were to be described as dirty), 97 possessed midden-privies, and 74 water closets, distributed as follows:—

		Privies.		Water-closets.
Newboro' Street District	..	12	..	4
Leeman Road District	..	26	..	6
Hungate District	.. ..	1	..	20
Bishopthorpe Road District	..	16	..	3
Remainder of City	.. ..	42	..	41
		<hr/>		<hr/>
		97		74
		<hr/>		<hr/>

At the midden-privy houses there occurred 124 cases, 27 being secondary to cases occurring at the same house, and 5 of the cases (all single cases) had undoubtedly contracted the disease outside York, so that the nett number of midden-privy houses probably having something to do with the causation of Fever in the City was 92 (with a nett of 119 cases).

The large majority of the midden-privies were more or less foul or leaking, so foul as to constitute nuisances; at 30 of the 97 privy houses there were positive defects of drainage also.

At the 74 water-closet houses there occurred 97 cases of Typhoid Fever, 23 being secondary to cases occurring at the same house, and not less than 12 of the cases (all single) had contracted the disease outside York, so that the nett number of water-closet houses having some connection with the causation of Fever in the City was 62 (with 85 cases nett).

Of the remaining 62 water-closet houses deduct 5 where there is reason to believe (there being no sanitary defects at these 5 houses) that the patients contracted the disease elsewhere within the City in attending upon other cases. We have now 57 to consider. Of these, not less than 27 had some defects of drainage (*i.e.*, drains passing under the houses defective, drains choked, defective rain-water downspouts, defective yard-gullies), 9 being in Hungate. At least 16 were to be described as decidedly dirty; 10, having no defects of drainage, were distinctly associated with conditions of polluted soil, in addition to practically the whole of the 20 water-closet houses in Hungate District, in which were also houses dirty and houses with defective drains.

In fine, there are only 15 water-closet houses in which we fail, so far, to find any clue as to the possible or probable origin of the case, there being no

defects of drainage, no obvious pollution of soil, no history of possible origin outside the City. In 4 only, the householders complained strongly of offensive sewer-ventilators.

Thirteen houses affected during 1900 had been affected with Typhoid Fever during the previous 6 years, and 12 out of the 13 were midden-privy houses, and affected midden-privies are, in my opinion, capable of affecting many other houses than those to which they belong. Practically all the privies have led to more or less pollution of the soil, and cats, mice, birds, and flies, in my opinion, play an incalculable part in the spread of contagion.

In at least 87 of the 171 houses, the drain was not disconnected from the sewer or properly ventilated (Newboro' Street, 12; Leeman Road, 15; Hungate, 10; Bishopthorpe Road, 15; remainder of City, 35); and of these at least 25 (including 7 in Bishopthorpe Road) of the drains pass under the house.

Rain-water downspouts:—

56 were found to be connected direct to the drain;

42 were not disconnected from the street sewer;

10 were not disconnected from the sewer, and received the waste-pipe from the roof of the bay window, immediately below a bedroom window;

A large number of the fall spouts connected direct to drain or sewer were found to have open joints.

In 19 instances the sink waste-pipes, or the gullies in the yard over which they opened, were untrapped or in some way or other defective.

In at least 50 instances the yard-pavements of the houses were incomplete or defective, and permitting of pollution of the subjacent soil.

In at least 53 instances the sewer-ventilators or street-gullies were complained of as acting offensively as outlets of sewer-gas. In Leeman Road District nearly every typhoid-affected house complained of either the sewer-ventilators or the street-gullies.

Taking the whole of the cases into consideration, I find that the majority were associated with the existence of midden-privies, most of which were more or less foul or leaking, with uncemented walls and floors, in not a few instances with dilapidated walls, most of them permitting of the pollution of the adjacent soil. The cementing of the walls and floors with many of the privies is insufficient to prevent pollution of the soil, as it is often cracked and so permits soakage; a large number of them are found inches deep in liquid filth, or so full of refuse as to reach above the cemented portion of the walls.

Furthermore, a large proportion of the midden-privies, especially in the Leeman Road, Newboro' Street, and Bishopthorpe Road Districts, have become **specifically infected** by the excreta of Typhoid Fever cases in previous years. The number of these has, of course, become largely increased this year, before measures could be taken to prevent their infection, and by cases in the early stages of the disease.

Next to midden-privies, defects of house-drainage were most associated with the occurrence of the disease.

The localities of the outbreak of 1900 in which midden-privies prevail are:—

Newboro' Street and Scarboro' Terrace,
Leeman Road District,
Bishopthorpe Road District,
Holgate Road District.
Scarcroft Road District,
Bishophill,
Walmgate, Layerthorpe, and
Cemetery Road Districts.

The backs of **Newboro' Street and Scarboro' Terrace** (fairly well-built and pleasant streets) are separated by a back road only four feet wide, and with an unbroken length of about 670 feet. This back road was lined from end to end on both sides with midden-privies, some 12 of which had been infected with Typhoid excreta during previous years, and during the Summer months it was a somewhat sickening ordeal to pass down the full length of this back road, owing to the emanations of the privies, some very full of refuse, some very wet, some leaking.

All the occupiers of the houses opening at the back on to this narrow back road complained of the offensiveness of these midden-privies, not of their own merely, but of the whole line of them. On the opposite side of Newboro' Street, the midden-privies are of no better construction, but they are not hemmed in by others, they are open to ventilation from across a large cricket field. Four houses on that side of the street were affected during the year 1899, and one in 1894. No houses were affected on that side of the street in 1900. The whole of the cases (14) occurring during 1900 were on the Scarboro' Terrace side of the street. In Scarboro' Terrace 4 houses were affected during the year 1900, 3 in 1899, 3 in 1898, 1 in 1895. Midden-privies were associated with all these cases.

No cases have yet occurred in neighbouring streets—Filey Terrace and Upper Newboro' Street, &c.—where the back roads are 10 feet wide, and where the midden-privies have not been infected.

In the Newboro' Street District there were also some defects of house-drainage, chief of which being that the rain-water downspouts at the front of the

houses were connected direct to the sewer, several of them open-jointed. Most of the drains were not disconnected from the sewer and had no ventilating-pipe, but only one of the drains passes under the house.

During the summer of 1899 the neighbouring surface sewer-ventilators and street-gullies were frequently acting offensively as outlets of sewer gases. The sewers were investigated and were found to possess very slight fall, and they contained extensive deposits. The sewers were therefore re-laid under improved conditions and with much better gradient, and I have heard little or no complaint of their ventilators during the summer of 1900. The work of re-laying the sewers was completed in May, 1900, some weeks before the fever commenced to affect the district.

Whether or not sewer-gas had any connection with the outbreaks of Typhoid Fever in this district during the years 1899 and 1900 is doubtful: it is impossible to say (we have no positive evidence): it may or may not have had some influence. But when one considers the hemmed-in position of the midden-privies in the district, the number of them previously infected by Typhoid excreta, and the enormous numbers of flies to be observed during the summer months playing around middens, kitchens and pantries (cats and mice must also not be forgotten as possible carriers of contagion), I am convinced that the midden-privies of the district were the chief source of the contagion.

The City Council adopted my recommendation to order the abolition of the whole of the midden-privies on both sides of the narrow back road between Newboro' Street and Scarboro' Terrace, all of which were so foul as to be nuisances, and at least 20 of which had become specifically infected in 1900 and previous years; the midden-privies to be substituted by water-closets and dry ashes receptacles, the fall spouts to be disconnected from drain and sewer, and the drains to be disconnected from the sewer and properly ventilated where advisable.

Leeman Road District :—

A similar condition of things prevailed in the part of this District affected. The District may be said to consist of 3 parts, a circumscribed area, quite a colony, about a mile from the centre of the City, and a sparsely-populated road leading to it from the town; the circumscribed area consisting of 2 portions, close together and interlocking, viz., an older and "jerry-built" portion (built 1880—1890), and a newer and better-built portion (built 1890—1900).

It was in this older portion that the outbreaks of Typhoid Fever in 1899 and 1900 chiefly occurred.

The following are the general characters of the District:—

Houses built on an absorbent soil and without concrete foundations.

Situation open to the air of the river and country north-west of the City. (Summer level of River Ouse, 16·75 feet above sea-level: average level of Leeman Road District, about 33 feet above sea-level).

Houses entirely of working-class character, largely “jerry-built,” of poor, very porous bricks, walls breaking down, midden-privies with thin walls cemented or not cemented on the inside leaking into yards and back streets, incomplete or defective yard-pavements, insufficient disconnection of house-drainage from the sewers, insufficient ventilation of the drains.

Nearly all the houses in this portion of the District possess midden-privies.

Cobble-paved or insufficiently-paved back roads, 10 feet or more wide, prevail.

I believe that the majority of the cases of Typhoid Fever in this District owe their origin to the infected midden-privies, of which there were at least 42.

During the Summers of 1899 and 1900, the street-gullies and surface sewer-ventilators were most offensive, and, in my opinion, their emanations could not fail to prejudice the health of the people living in the District.

The sewers have been investigated, however, and “were found generally to be in a very good condition.” The number of flush-tanks and upright shaft-ventilators has been recently increased, and improvement in regard to the sewer-ventilators is expected. Special attention is also being given to the street-gullies.

Unpaved and insufficiently-paved back roads are being paved with “lock-grip” setts, an impervious paving much superior to cobbles.

My recommendation was adopted that all midden-privies in the District known to have been infected with Typhoid excreta should be abolished and substituted by water-closets and dry ashes receptacles, that all rain-water down spouts should be disconnected from the sewer in proper manner, and that all defects of house-drainage and yard-paving be properly dealt with. (A house-to-house inspection of the District is to follow during the present year).

The same policy is to be carried out with **the other midden-privy districts** above-mentioned, in all of which the prevalence of Typhoid Fever during the past year was almost entirely associated with the existence of midden-privies and infected midden-privies, otherwise with defective house-drains. In these Districts there were very few complaints of sewer-ventilators or street-gullies, but there were very numerous complaints of nuisance arising from midden-privies,

the large majority of which in these Districts were hemmed-in in narrow four-foot back roads or confined yards, a considerable number of them leaking and surrounded by defective surface pavements, some with no other way for the removal of the refuse than through the house.

In my opinion, York is a town for which midden-privies are not suitable, taking into consideration the flatness of its level, its porous, absorbent soil, its narrow streets and numerous yards or courts. It is pre-eminently a town for the water-carriage system throughout, although that system, it must be said, calls for perfect drainage, and for **free ventilation** of the sewers.

The area, **Hungate District**:—This circumscribed area is of low level, and consists of narrow streets and lanes, courts and alleys and passages; cottages, many of them let in tenements, others only very small (one or two rooms), closely huddled together without regard to street and house ventilation or sunlight. Nearly all the houses possess the use of water-closets, the majority being blocks of water-closets common to two or more occupiers. There were defects of the closet or drainage easily remedied in 9 of the houses. This is an area containing many cottages—mostly dirty or dilapidated, defective cobble or other yard pavements, cobbled streets upon which the occupiers deposit considerable filth. There were no complaints of sewer-ventilators in this District, and there is no reason to believe that any of the sewers are defective.

No less than 11 of the 33 cases in this District were secondary to cases occurring in the same house, and quite half of the 21 houses affected were decidedly dirty. Dark and dirty houses and dirty people, and much polluted ground—the surface of which largely becomes dust in the warm dry weather of Summer, and is blown or otherwise carried into the houses and into milk and other foods and drinks,—hence the prevalence and spread of the disease in this District, which is one largely requiring to be dealt with as an insanitary area under the Housing of the Working Classes Acts.

GENERAL CONDITIONS

concerning the whole City in regard to the prevalence of Typhoid Fever during the year 1900.

There is no connection whatever between the outbreak and **the water-supply** of the City. The water is drawn from the River Ouse, $1\frac{1}{2}$ miles above the town; it is freely oxygenated (the river having a large air-surface, a large volume, and a good current); it is well filtered. It is practically an inexhaustible supply, and unlimited in its distribution; the service is continuous, and under such

pressure that it is quite impossible for leaky water-pipes to act as land drains. I have satisfied myself by inquiry and by observation and experiment (bacteriological and chemical) that the water has been remarkably pure, and has certainly not been the cause of the prevalence of fever. My inquiries have also failed to learn of any specific contamination of the river above the intake during 1899 or 1900. Moreover, the cases have not been distributed in a manner suggestive of any connection with the water-supply of the City.

Milk Supplies.—There has been absolutely no connection between the prevalence of Fever and the milk-supplies, which have been quite free from suspicion. Cowsheds, dairies, and milk-shops have been closely supervised, and their condition is generally good and improving. The milk-supply of the Fever cases during 1900 was distributed amongst no fewer than 55 cow-keepers.

I have also satisfied myself that there has been no connection between the prevalence of Fever and the consumption of **ice-creams** or of **oysters**.

The following **Measures for checking the spread of the disease** have been carried out during the year:—

(a) The circulation of 8,000 copies of a leaflet on “Summer Diarrhœa” throughout the working-class quarters of the City, the leaflet having been designed to cover Typhoid Fever prevention as well as that of Summer Diarrhœa.

(b) Hospital isolation of cases to the full extent of accommodation at our disposal. Of the total number of cases, 49 were treated in the York County Hospital (a general Infirmary), and 25 in the Corporation Hospital; a total of 74, therefore, were treated in hospital, or 30·3 per cent. of cases. Unfortunately, during the last quarter of the year, a considerable amount of Scarlet Fever also prevailed and took up hospital accommodation. The extension of Hospital accommodation is contemplated at an early date.

(c) The collection and removal of the excreta of the cases in special pails of galvanised iron, fitted with air-tight and water-tight lids. Two sets of 25 pails each have been kept constantly employed since September 4th. The pails were collected, and cleansed ones containing crude carbolic fluid substituted, every 24 hours (Sundays included); and collected excreta buried in deep pits away from houses or water-sources, freely mixed with chloride of lime, ashes, and earth. I recommended the use of a special pail in 1899, but the limited outbreak of that year suddenly subsided and the pails were not required. The recommendation was repeated in May, 1900, but some difficulty was experienced in meeting with a satisfactory form of pail until August. Since they were brought into operation the pails have served 67 houses, representing 89 patients. The specific pollution of 67 privies and house drains has thus been prevented.

(d) The Sanitary Authority also adopted my recommendations for the frequent flushing of sewers and street-gullies, especially in the affected Districts, and for the frequent emptying of midden-privies in the same Districts. Disinfectant powders were also freely used after cleansing of privies and gullies, and disinfectants (chloride of lime, crude creosotic fluids, &c.,) were freely given from the Sanitary Department upon application by householders for disinfection of house-drains.

It only remains for me to say, in conclusion, that although there is so much work in the direction of sanitary improvements in the City still before us, yet a very large amount of sanitary work has been accomplished during recent years. Since January, 1897, alone, in 1,491 dwelling-houses (in 1897, 359; in 1898, 352; in 1899, 368; in 1900, 412) have sanitary improvements (structural only) been carried out. These improvements chiefly comprised:—abolition of foul midden-privies and substitution of water-closets and dry ashes receptacles in lieu thereof, reconstruction of defective drains, and disconnection of rain-water fallspouts from drain and sewer. The Sanitary Department has been fully occupied, and is thoroughly alive to the need for steady, continued work in the future.

I am, my Lord Mayor and Gentlemen,

Your obedient Servant,

EDMUND M. SMITH,

Medical Officer of Health.

February 7th, 1901.
